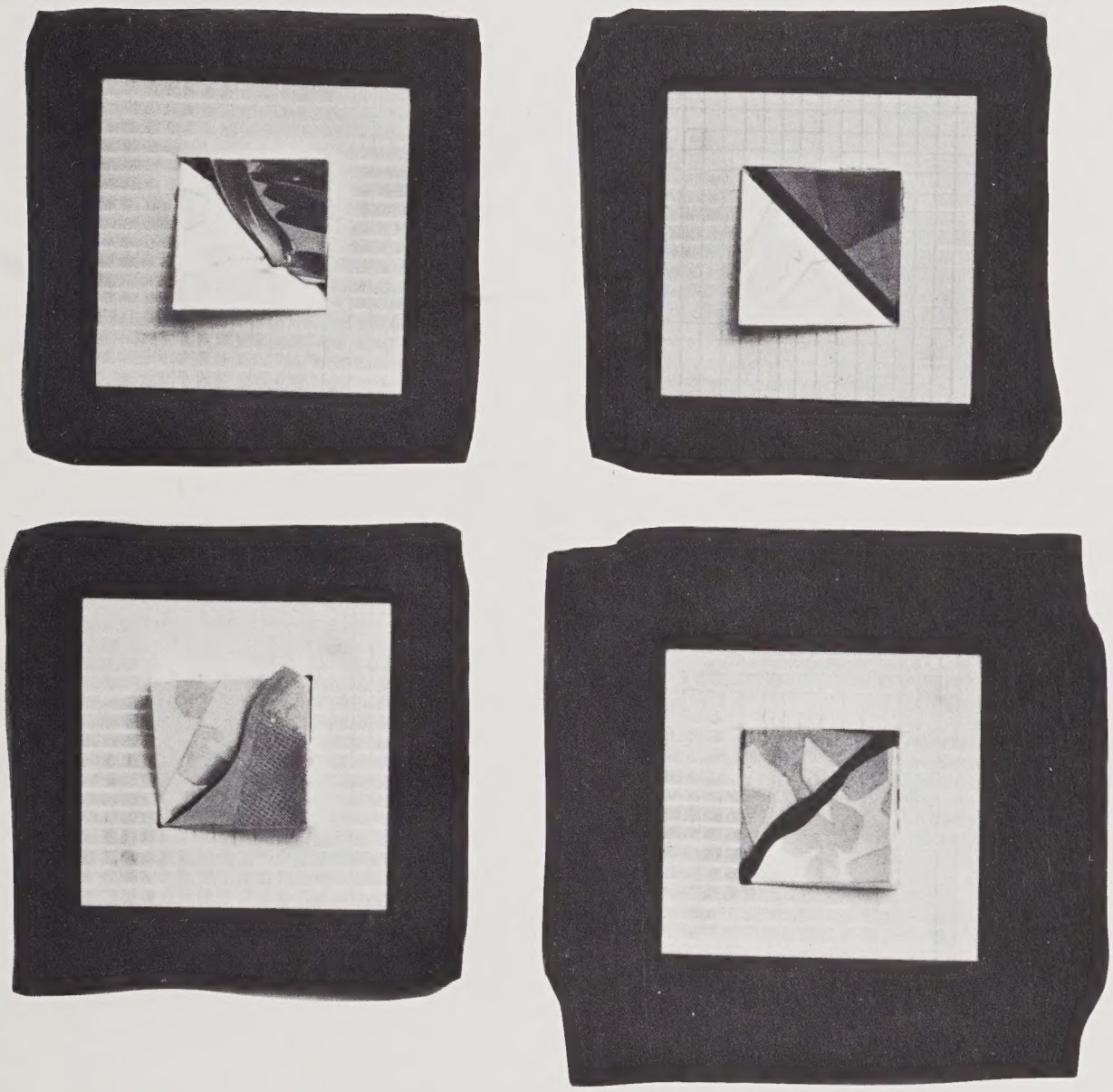
GOLDSMITHS JOURNAL

29

Volume VI, Number 2
April 1980

SOCIETY OF NORTH AMERICAN GOLDSMITHS



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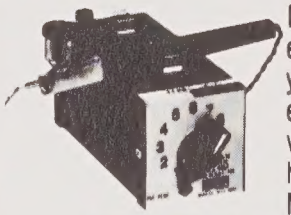

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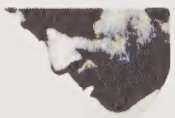

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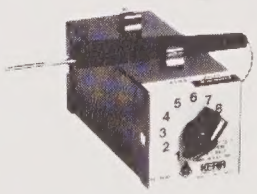

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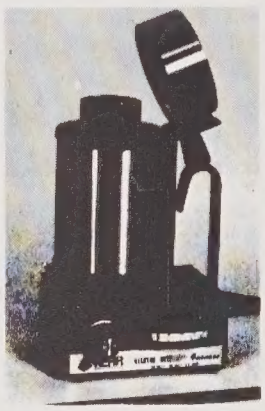

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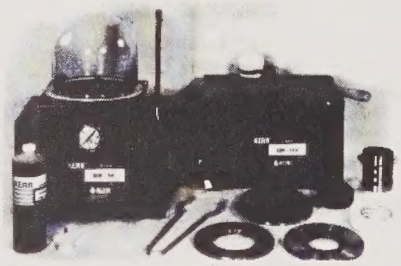

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Special Insert
Goldsmiths Journal
Reader Survey

We would like to be able to keep an update of the personal and professional changes of each individual member, but our circulation has gotten so large that we can't contact each of you. Therefore, we are using a general survey. A magazine is always communicating with its readers; this is your opportunity to communicate with us. Your answers, of course, are completely confidential and will be used only in the development of statistical data. We will publish results of the survey in the September 1980 issue of the journal. In appreciation of your response, we would like to send a friend a FREE copy of the journal. Please supply this information at the end of the survey. Thank you.

Your age?_____ Sex: m_____ f_____ Are you married? _____

Have children?_____

How long have you been a member of SNAG?_____

Are you: Pro_____ Associate_____ Student_____

How long have you been a metalsmith? _____

In what area(s) of metalsmithing do you work: jewelry_____

holloware_____ blacksmithing _____ enameling _____

other (please specify) _____

_____

Are your pieces primarily: functional_____ sculptural_____

What materials do you use? _____

How much do you spend on materials and tools each year? _____

Where do you buy your materials and tools? _____

_____

_____

_____

Where did you learn your craft? _____

_____

Where is your studio located? _____

City and State or Province _____

Annual income from metalwork: 0_____ $100-500_____

$500-1,000_____ $1,000-5,000_____ $5,000-10,000_____

$10,000-15,000_____ $15,000-20,000_____ $20,000-30,000_____

$30,000-40,000_____ $40,000-50,000_____ Over $50,000_____

From what other job(s) do you derive your income? _____

_____

Do you sell your work: at your studio_____ through craft galleries_____

through craft coops_____ at craft fairs_____ through mail order_____

through private commissions_____ other (please specify) _____

Have you exhibited in a juried show?_____

Do you lecture or give workshops?_____

If so, on what subjects? _____

_____

Where do you get information about your craft: Number in order of importance. books_____ magazines_____ newsletters_____

other craftsmen_____ lectures and workshops_____

organization conferences_____ galleries and museums_____

other (please specify) _____

_____

What magazines do you read?_____

_____

_____

How often do you visit galleries or museums? _____

Are there any you particularly like? _____

_____

What other crafts interest you: weaving/fiber arts_____ pottery_____

glassblowing_____ woodworking_____ papermaking_____

leatherworking_____ other (please specify) _____

What are your major concerns as a metalworker?_____

_____

_____

Please indicate how much you read of the following in *Goldsmiths Journal:*

	all	some	none
Exhibition reviews	_____	_____	_____
Upcoming events	_____	_____	_____
Opportunities	_____	_____	_____
Information	_____	_____	_____
Editorials	_____	_____	_____
Technical articles	_____	_____	_____
People	_____	_____	_____
Organizational news	_____	_____	_____

Which feature article(s) have you liked best?

_____

_____

Do you have any comments about *Goldsmiths Journal?* _____

_____

_____

_____

_____

_____

Would you be interested in advertising for yourself in the journal?_____

_____

Do you have any other comments?

Name of friend to receive free journal:

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Please mail this survey to:
Sarah Bodine, Managing Editor, Goldsmiths Journal, 35 West 84th Street, New York, NY 10024. Thank you.

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April/May 1980

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Mark Baldridge
Managing Editor/
Sarah Bodine
News and Reviews Editor/
Lynda Baldridge
Design Consultant/
Martin Moskof
Circulation/
Marty Neumann

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Cover: Group of Four Brooches by Bob Ebendorf. Copper, brass, silver and 14k gold. Approximately 2¼"x2¼" each. 1980. Photo: Little Bobby Hanson.

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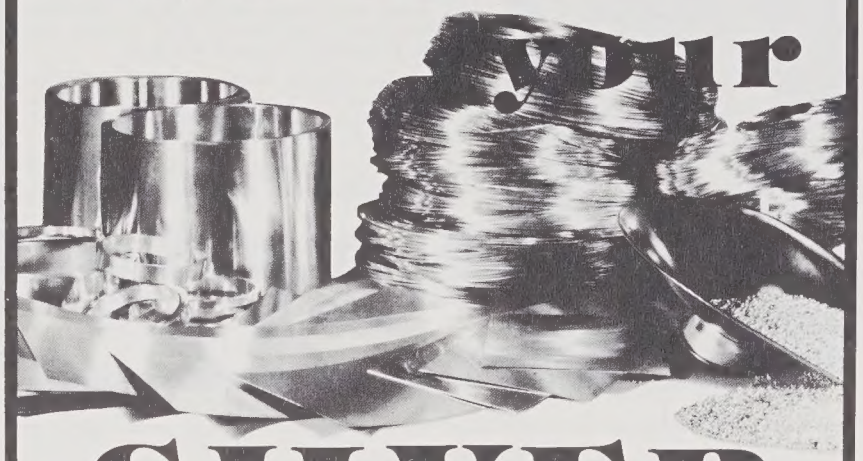

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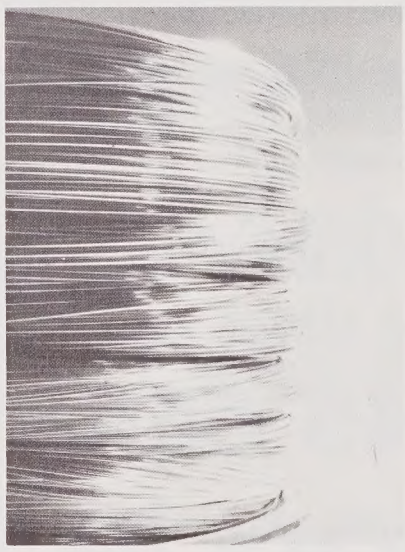

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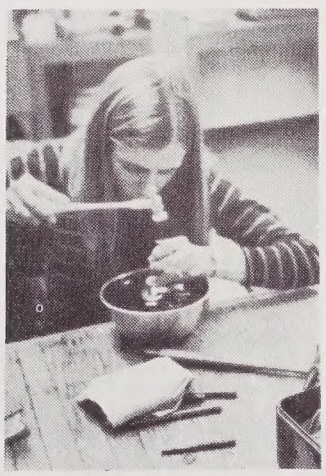

brookfield

If you thought 1979 was special at Brookfield wait 'til you see what is scheduled for the summer of 1980!

In Metalsmithing and Jewelry: *Heikka Seppa*—Shell Structures Techniques in metal forming; *Tim McCreight*—Die Forming; *Judith Daner*—More explorations in Enameling; *Pat Flynn*—Fundamentals of Jewelry and another workshop in Stonesetting; *Mark Baldridge*—Casting; *Barbara Mail*—Metalworking techniques for the enamelist; *John Cogswell*—Hollow core Jewelry and Container Construction; *Hiroko Sato Pijanowski*—Mokume-Gane.

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Letters to the Editor

Dear Editor:

I work as a metalsmith in Perth, Western Australia and lecture at the Western Australian Institute of Technology, the main school for craft education here. I am planning a trip to the United States in September 1980 and would be available for workshops and lectures during the three-month period I will be in your country.

I serve as Vice-President for the Crafts Council of Western Australia and my commissions include a piece for His Royal Highness, Prince Charles. Workshops I could offer include: Surface Treatments Related to the Landscape; Light as an Element in Jewellery Making; and Jewellery Making in Australia.

If anyone is interested, please contact me:

Kate O'Sullivan/128 Glyde St./ Mosman Park/ Western Australia

Dear Editor:

I am a graduate of Three-dimensional Design from Manchester Polytechnic, England, majoring in Jewellery/Silversmithing. Last summer I visited my brother in Richmond, Virginia and was impressed by the craftwork being produced there. I would love to travel back to the States and work in the metalsmithing field as a designer/craftsperson.

I am writing to inquire whether any established jewellers/silversmiths have vacancies or would be interested in an apprentice desirous of learning more about the art of metalwork. If so, please contact me:

Vivienne Turkington/2, Ashley Rd., Wyke/Bradford BD12 9JR/West Yorkshire/England

Dear Editor:

Concerning the price of gold and silver and the artist/craftsmen who make their living producing jewelry for the retail market . . . I think there has to be a rethinking of the middleman mark-up which is currently 50% - 50%.

A jeweler must now pay 600% more for his sterling and thus has to increase the price of his work accordingly. However, there is no real increase in his profit. Yet, then the gallery owner turns around and doubles the price, yielding a profit on the increase in material. I feel the time has come for this practice to be re-evaluated.

Kathryn R. Gough

Dear Editor:

I am a jewelry/metalsmithing student who will receive my BFA in May, 1980. I am interested in attending graduate school in the fall and would like information about graduate programs in jewelry/metal work, particularly those offering financial assistance of some sort.

If knowledgeable persons would please write or call (814) 734-7761, I would be most appreciative.

Michelle Bergeron/P. O. Box 33/ Edinboro, PA 16412

Dear Editor:

I would appreciate information on setting stones (prongs, pave) either through articles, books or classes you could recommend. Thanks.

Elisa Ortolani/12 Eagle Crest Place/Oakland, NJ 07436

Dear Editor:

I have been happy to be available as a consultant to SNAG for the past several years and have noted with pleasure the growing professionalism of the *Journal* under your stewardship. Your avoidance of legal entanglements during the growing pains of a relatively new venture strikes me as further evidence of skilled and careful management.

Although I understood very little of the technical reports in the *Journal*, I certainly enjoyed leafing through the publication and following its evolution. As a result of this association, I will always hold a very high opinion of SNAG and its work.

Alan B. Kaufman/Director, Sports & Program Compliance, NBC

Editor's Note: Alan Kaufman served as a volunteer lawyer for SNAG for 4½ years.

Dear Editor:

I am delighted that your publication noted that works by Marilyn Davidson and Michael Jerry have entered the permanent collection of The Metropolitan Museum of Art. May I add that Davidson and Jerry are the only contemporary metal artists whose work has entered the collection in the 1970's and may I correct one item of misinformation: there has been no recent *purchase* of a work by a contemporary textile artist.

I would also like to comment on museum acquisition policies. The Metropolitan, like most American museums, is a private institution. The works of art in our collection have come in the main as gifts and bequests. Occasionally, funds are donated by a benevolent patron for the purchase of a specific object, but no patron has appeared with a fund to be applied generally to the field. I have nonetheless managed to acquire a small selection of contemporary work, each example of which I feel has outstanding merit. In the process, more offered gifts have been declined than accepted. For the permanent collection of The Metropolitan, an extraordinarily high standard must be applied, because works must stand in the context of masterpieces. As a curator, I must be at once begger and chooser.

Penelope Hunter-Stiebel/Associate Curator

Editor's Note: The fact that the Metropolitan, one of our nation's most respected museums, has only seen fit to acquire two metal pieces to represent an entire decade of exciting and innovative work, highlights our original point. Personally, we find that deplorable — there are a number of exceptional metalsmiths worthy of inclusion in the Metropolitan's "prestigious collections."

While we can readily sympathize with museum funding problems, we have difficulty reconciling different reports. When we see headlines from many of our country's major museums stating "
Museum purchases $1.5 million painting . . ." and then hear sob stories when it comes to purchasing contemporary crafts, we do not understand. According to newspaper, magazine and television reports, museums *are* spending money, but generally in traditional (perhaps safe?) areas, and there rests our contention.

Note: Since many letters received are of interest to the entire membership, unless specifically stated otherwise, all letters received may be included in the "Letters to the Editor" section.

Note: If you do not receive *Goldsmiths Journal* within 35 days of issue date, please write to the Editor. Missing journals must be reported within 60 days of publication date; otherwise, there will be a charge of $5 for each replacement issue.

THE CRAFTS REPORT

The Crafts Report, the newsmonthly of marketing, management and money for crafts professionals. For subscription information, write: The Crafts Report, 700 Orange Street, Wilmington, DE 19801.

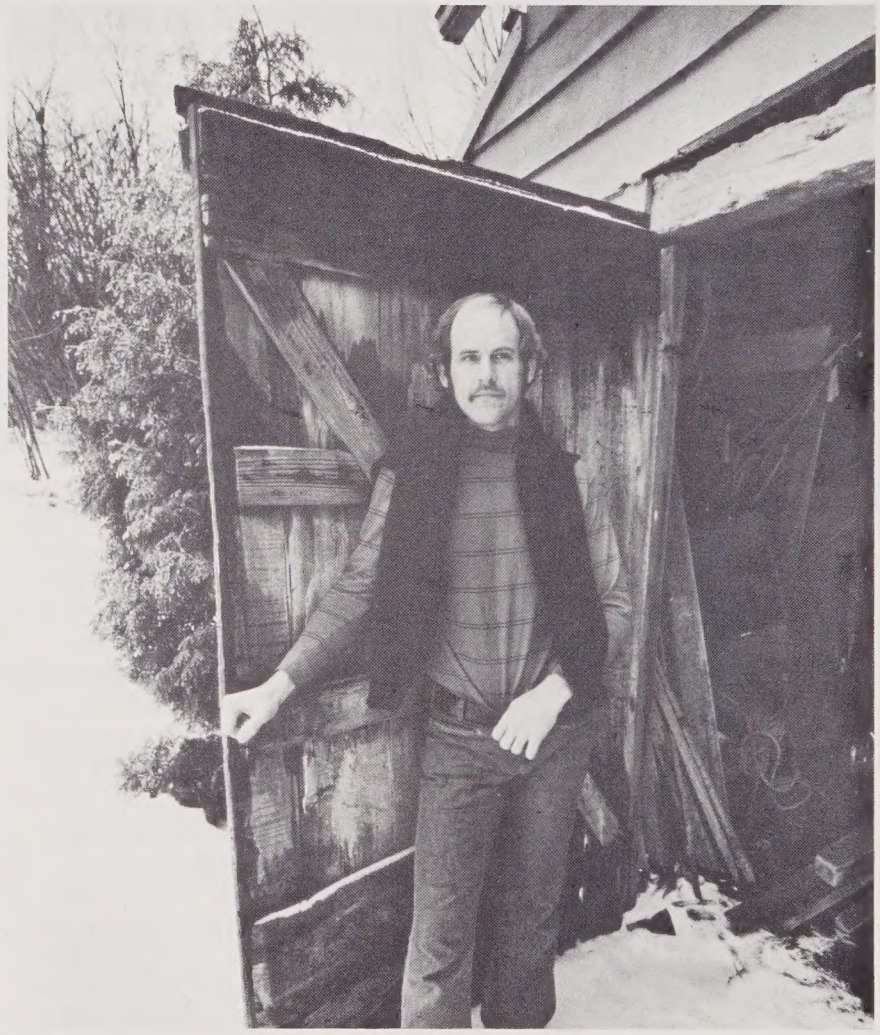
An Interview with Bob Ebendorf

by Jamie Bennett

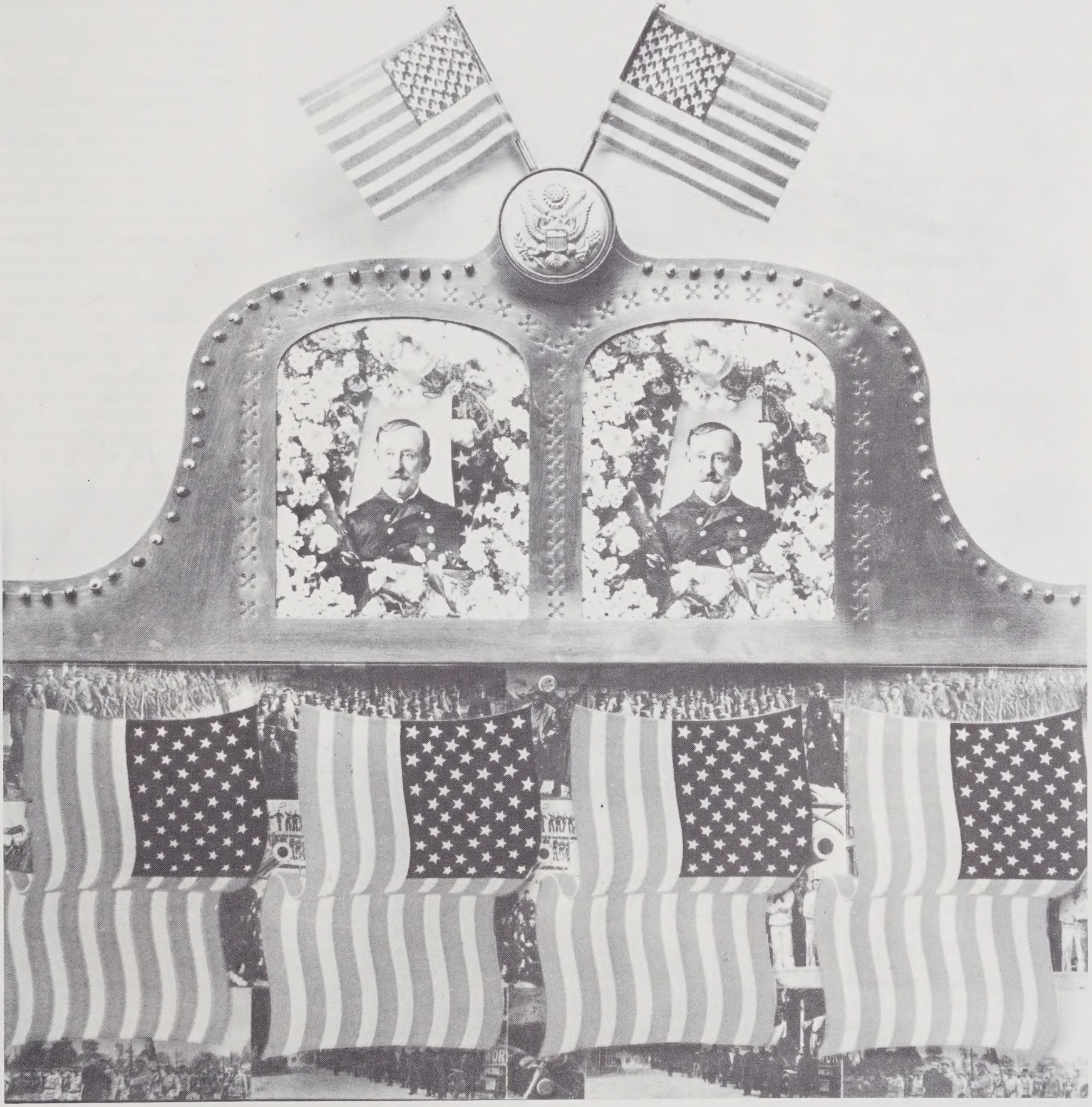
Too often an artist's impact on a particular medium is evaluated solely on his or her work. While the work is spotlighted, the artist is often overlooked. This is a particular dilemma in the field of metal, since many who have gained notariety are also teachers. It is probable that a far greater influence is felt in the realm of teaching, since it is here that the content, prejudices and philosophies of the field are encouraged and perpetuated. In conducting this interview with Bob Ebendorf, I was interested in catching a glimpse of how he functions in this duality of position: artist and teacher.

The occasion for this interview was the opening of Ebendorf's one-man exhibition at the Florence Duhl Gallery in New York City, February 5 to March 7, 1980. It was conducted on February 4 in the metal studio of SUNY at New Paltz and on February 5 in New York City. The interview centers on the preparation and development of work for this exhibition, including the pieces Ebendorf designed for David-Andersen in Oslo, Norway last year.

I have known Bob Ebendorf for a little over ten years, first as a student and then as a friend and professional colleague. I know very few people who work as hard and are as dedicated as teacher, artist and friend. His energy, enthusiasm and encouragement create an atmosphere that inspires one to work.



JAMIE BENNETT: Who were the artists that influenced you as a student?
BOB EBENDORF: Coming out of the Midwest, the University of Kansas, I really think back about that sometimes, asking myself who my mentors were, or was I even aware of the significant people in my field. It seems like my horizons were pretty limited — mostly regional silversmiths who lived in Witchita, and that contact was developed when we went from the University down to the Witchita Decorative Arts National Exhibition, as it was called. It was the important Midwest decorative arts, now crafts, exhibition. I recall visiting with a local silversmith who was Russian in origin but lived and worked in Witchita, primarily doing commission work for aircraft industry executives. So, in Kansas we didn't know many names in the arts or in metal, particularly. We weren't exposed to magazines, which would have been Craft Horizons at that time. Our teacher, Carlyle Smith, didn't speak of artists, jewelers, ceramicists, or goldsmiths — anything of that nature. We dealt more with teacher/student in the classroom, so really I think I went through a period of time, both graduate and undergraduate, uninterrupted by other people working in metal. This could be what we talk about as Midwest isolation. Brent Kington and Wendel Castle were there just before me — we have often spoken of the stark Midwest experience. Our teachers didn't really expose us to many things, as we see it today.
JAMIE BENNETT: When and how did you become aware of your contemporaries?
BOB EBENDORF: When I finished graduate school at Kansas, I still had very little knowledge of the craft world. I then received a Fulbright to study in Norway at the arts and crafts school. When I returned I began teaching in Florida, and, in 1964, Bill Brown invited me to lead the summer session at Penland. This was a real turning point, I think. That summer at Penland I met people who were very seriously working at their craft, who lived in Wisconsin and New York City, who spoke of the Museum of Contemporary Crafts, which I had only heard of, and who were friendly with the director, whom I knew only by name. It put me in contact with artists, some of whom were teachers, some also working as production potters, like Cynthia Bringle or Ron Probst, who was a student, some were working in wood, like Skip Johnson, and of course, the metalworkers Ron Pearson and Jack Prip. Kington was from my home town, so I knew him and his work, and Earl Kretson from Michigan — I think made little silver figures. I returned to Penland for three more summers and began to get involved in the winter with Florida Craftsmen. Here I was introduced to craft organizations, dealing with artists and the exhibition thing. I put together and set up one of the Florida Craftsmen's exhibitions and through them and at Penland I began to have more contact.
JAMIE BENNETT: As a teacher, how do you reconcile the role of technician and artist?
BOB EBENDORF: I think it must be a combination. When the teacher is dealing with and trying to disseminate information of a technical nature, it's very easy for him to begin to become scholarly and do that research which may become the primary focus. The technical kind of virtuoso. This has to be balanced with working in a personal way to accommodate iconography, imagery and concepts.
JAMIE BENNETT: Is there technical excess in what teachers instill in students?
BOB EBENDORF: I think there is. But then you talk to some teacher/goldsmiths and they'll ask, is that not what the university offers in part; where else are they going to



Digit bigot wall piece. Mixed media. 1969–70.

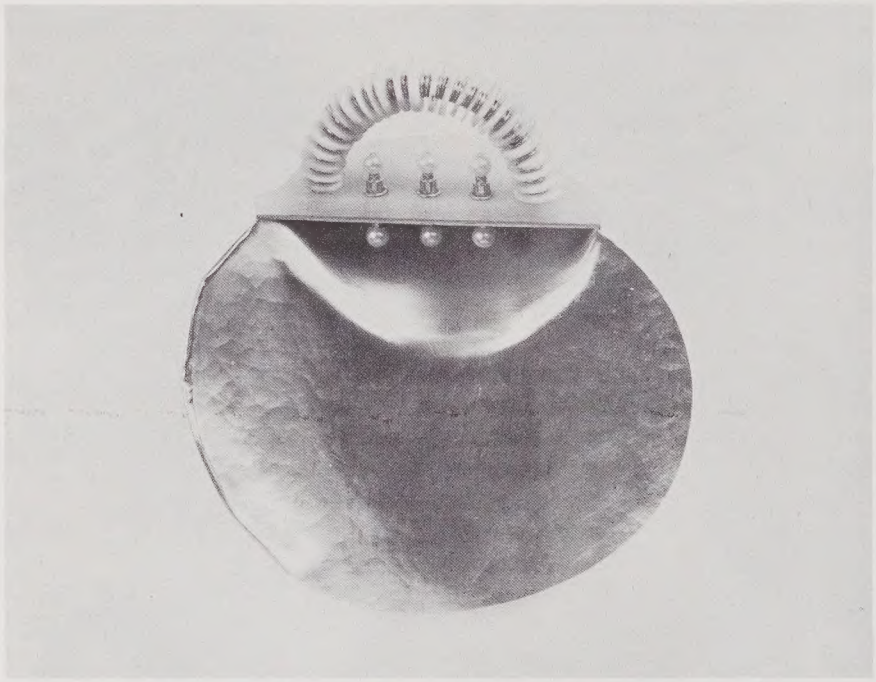
have the time to learn in-depth technique? Because, once they leave the classroom, they're not going to have the rich time to sit down and work a process out.

I think that classrooms get inundated with technical virtuosos. The faculty can try to keep it down a bit and at the same time help students to develop personal styles, deal with concepts and mature as artists. But a hype seems to be going on within the students' own peer group. They all want acknowledgment; they all want to be successful. And so if Mary Smith gets into the "Young Americans" show and she's done a super whiz piece with A,B,C,D laminations and plastic turned finials and so forth, all of a sudden that's the new yardstick, that's the direction to be going in. They don't have the maturity. They have not made those many, many mistakes. As I look around me today, I see such ability, but their eagerness sometimes puts them into that state of more is better, that tour de force. They don't take the time.

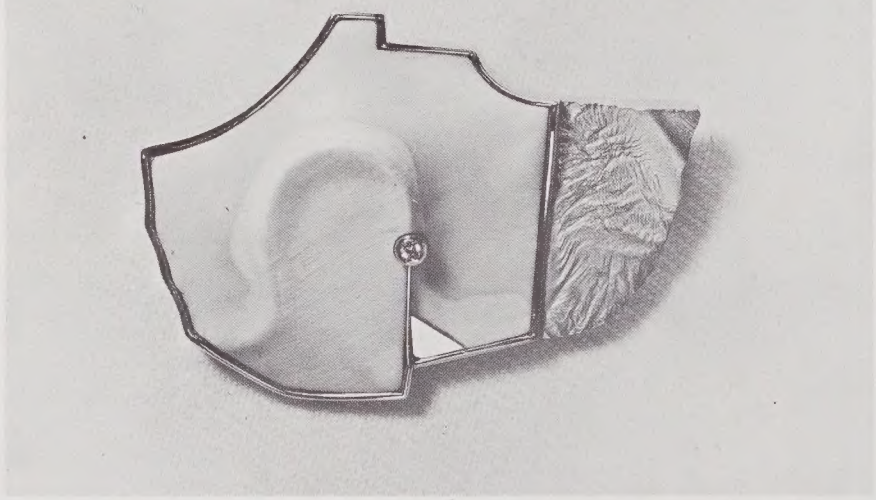
Maturity is a tedious process. They must mellow. I know I can look back now and see some of my past energies, my problems and fighting, coming up through the ranks. The maturing process is slow, and some turn to show work to flash. It's a fast way to be noticed. We see a lot of it in exhibitions.

JAMIE BENNETT: Do we encourage some of this indulgence by technical papers and workshops?

BOB EBENDORF: This may be true. The American metal syndrome is so well connected and open — slides from California are in Texas and Johnny C. from Tennessee is in Connecticut. Yes, perhaps that whole cycle may be creating a monster. I think the workshop people must talk about: if you take a technique and work with it, it takes a long time to take the aesthetics, the scholarly aspects, and bring them together culminating in a statement.



Pin. Silver, gold-plated, pearls, ivory and acrylic. 3½"x3¼". 1974. Photo: Little Bobby Hanson



Brooch. 14k gold, ivory, diamond. 1978. David-Andersen Collection. Photo: Teigens Fotoatelier

One thing that Paul Smith, Director of the American Craft Museum, said to me, "Bob, you know it's interesting, the 'Young Americans' show, 'Forms in Metal,' other exhibitions, I take those names, slides, and I go to my files. Then when I'm ready to put an exhibition together next year or two years from now, I go back to my files and try to contact them. You know, they're no longer around. It's very hard for me as a museum director to know, not who to count on, but who are going to be the ongoing artists." We really do go through popular metalsmiths and processes. So we have to be careful, to caution what it takes: the maturity to pursue a way of working. It's a delicate situation. I am a part of that workshop syndrome and have been severely criticized as to what it's all about; is it the information that's bad or is it an attitude? You and I have both gone through that, evaluating what it is — what are we giving out and to whom? I hope we are now handling that with delicacy and maturity.

JAMIE BENNETT: What are the opportunities for the students who graduate with such technical proficiency in metal?

BOB EBENDORF: Opportunities in the contemporary working of metals? That's a hard one — it's a whole other creative game — there seem to be openings in commercial jewelry firms or in the industry for new designers. For instance, Reed and Barton put out a large sum of money for their designer group. How successful they were in marketing, I don't know, but at least there was a major firm that invested money and tried to bring a new input to their image, a designer collection. I see firms hiring young artist goldsmiths with particular expertise and training them in the firm's direction. One of the past students from New Paltz happens to be working for Oneida as a repousser and chaser. Now, true, that young talent, both technically and artistically vigorous with a lot of potential to develop, treads a thin line when it gets into this position, it begins to be channeled into the "Cartier look" or the "Odessa look." I experienced that when I went to Norway; I was too aggressive. My work was too aggressive for their clientele. The pieces I made were not classic jewelry. I think it's the same way here. When that person finds the job, little by little, they get nicked away and nicked away until after a while they take on the "Avon look," because some firms can't make those changes.

JAMIE BENNETT: How does one cope with accommodating the public taste? Do we take that step back when we find that what we are doing is not being accepted, or do we venture forward and perhaps take some risk?

BOB EBENDORF: I think each

individual artist handles that. They have different yardsticks and they have different ways. If there is a severe need — if the artist is making pieces and all of a sudden they need to sell the pieces and they're not being sold, they begin to evaluate their way of presenting their work. Is the gallery the best route? Or is it Tupperware parties in Dr. Jones' apartment who is very wealthy and who has wealthy friends. I mean, there's a lot of bucks to be made when a group of metalsmiths puts together a special presentation in John Smith's apartment. There is a difference between interest in recognition, commitment to content, and just wanting to sell your work. For those whose game is: "I'll make the work and I want to sell it so I can continue," their ego is not involved with being in the circle of art, but they may make good pieces and I can respect their work.

JAMIE BENNETT: What is your major concern as an artist/metalsmith?

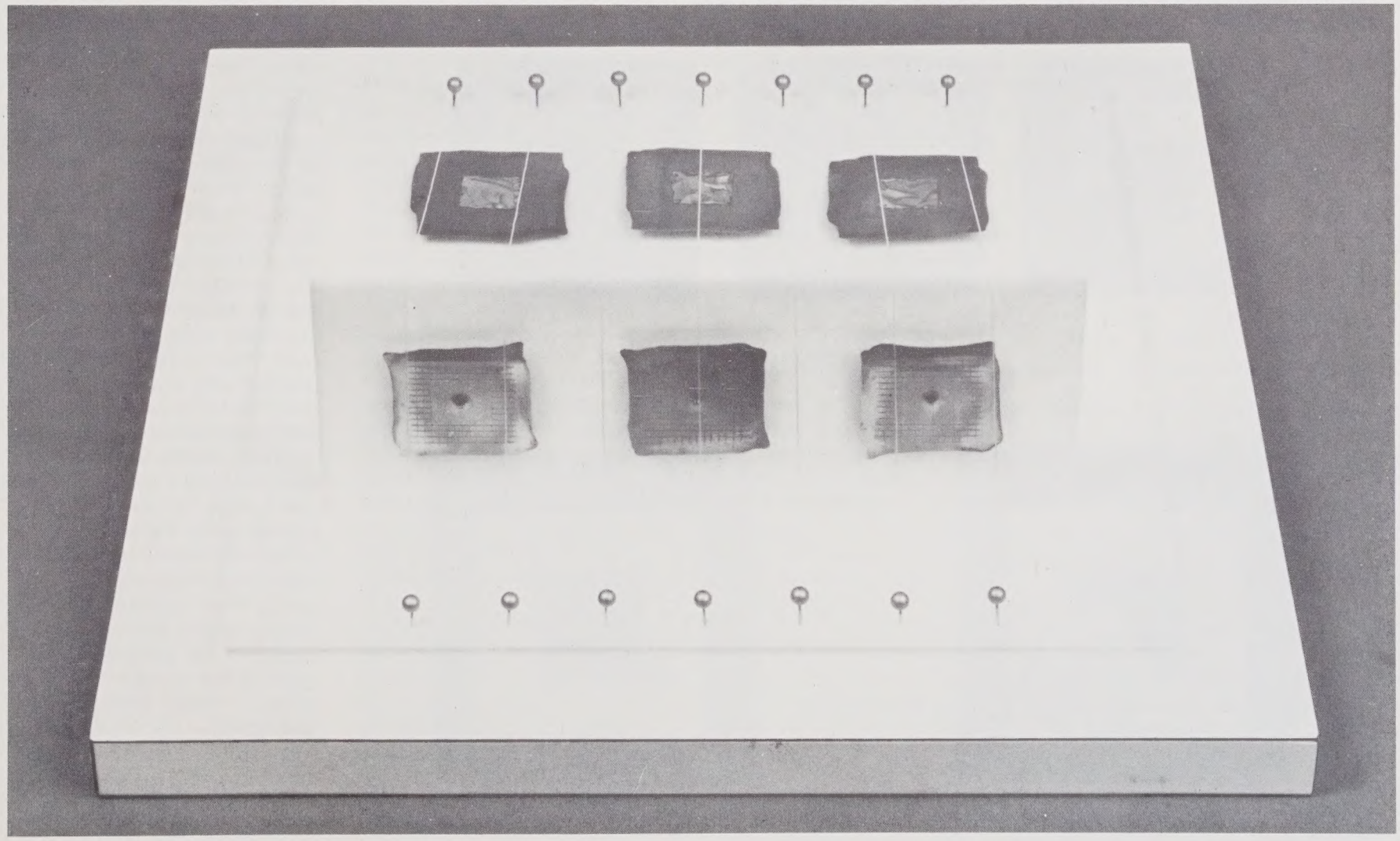
BOB EBENDORF: Trying to take a thread of information, to weave with it and to develop a thought process and then to reach up on my workbench and pick out which technique or which material I will work with, all in the hope of making a personal statement.

JAMIE BENNETT: Your choice of presentation of the main body of work in the exhibition is interesting. Although each piece is carefully planned and executed, the concern seems to focus on each as an element of a larger unit. Could you speak about why you decided to present the pieces in that manner?

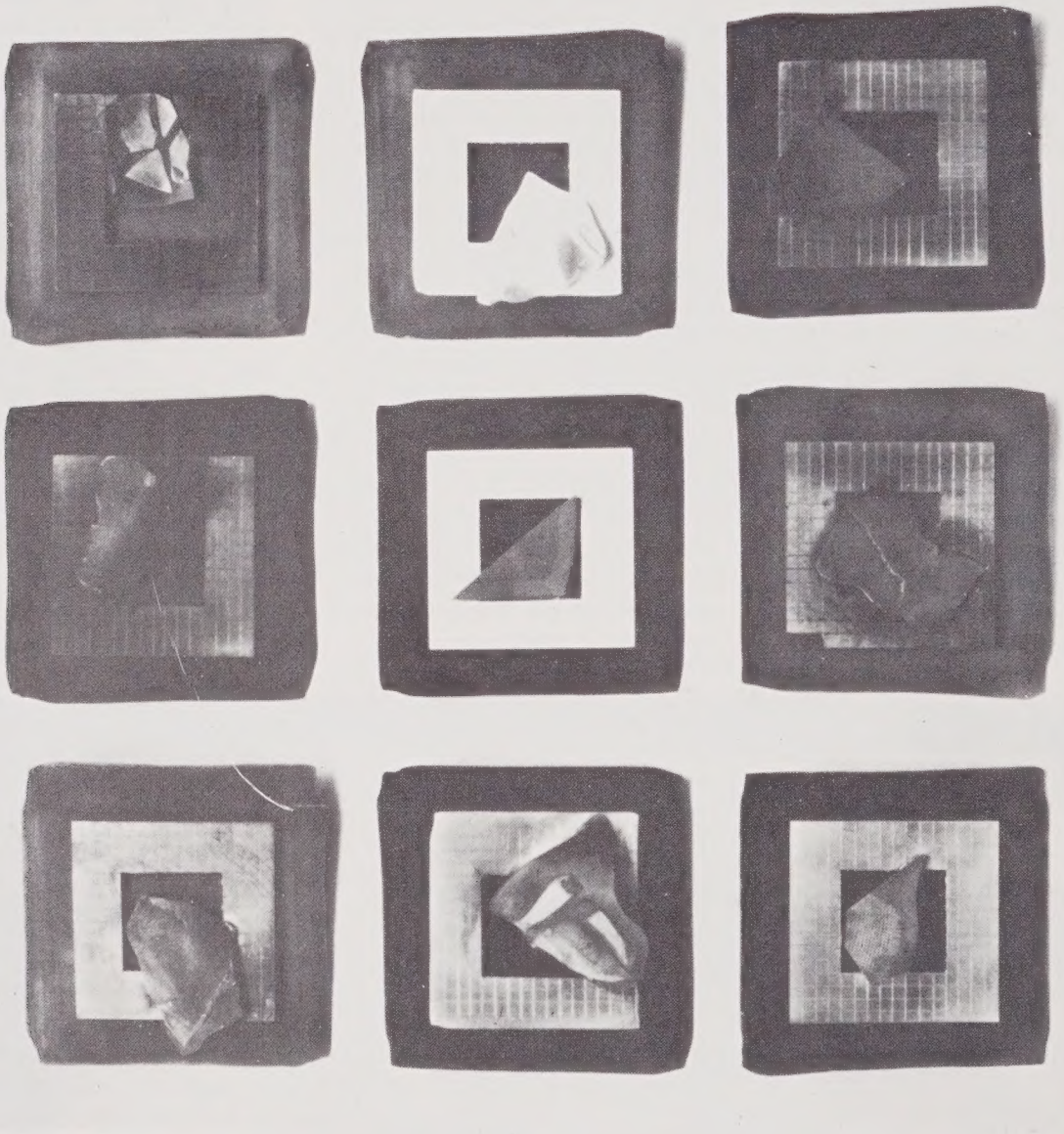
BOB EBENDORF: I conceived the pieces in a series, in groups of threes, groups of nines and fours. Therefore, as I sat down and made them I worked in these configurations. There is a thread that runs through them — I did them together. When I presented them I felt there was a strong relationship and I wanted to keep that relationship visually together.

JAMIE BENNETT: Are you concerned with the context your pieces are placed in? Although they were grouped as units, some are being broken up and sold individually as jewelry.

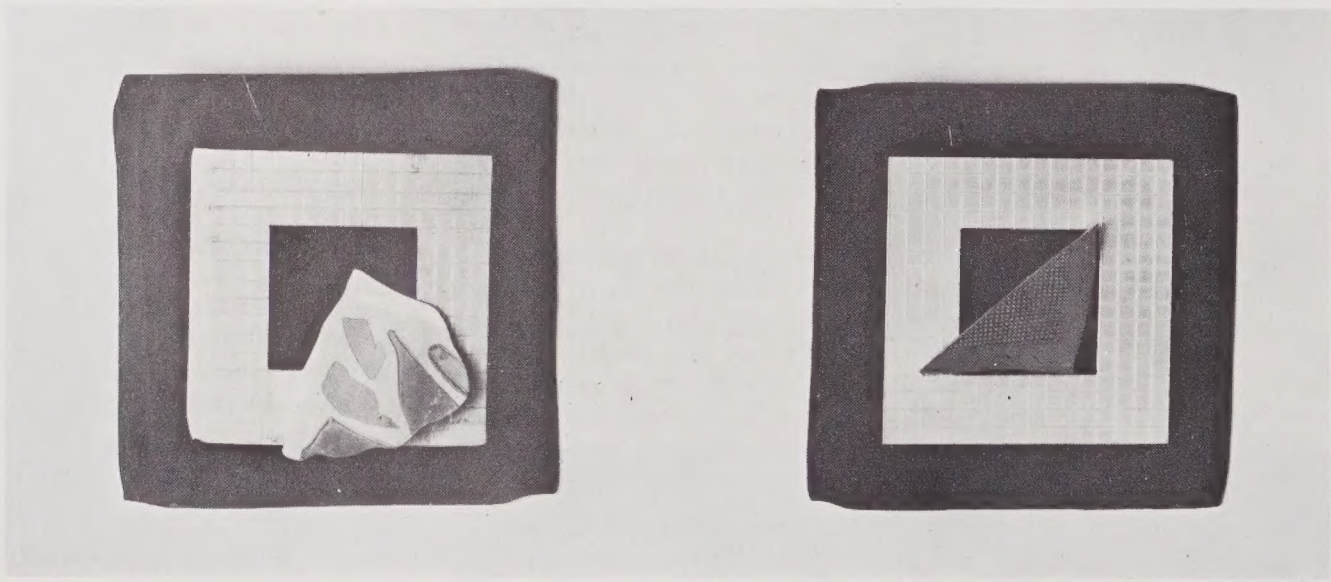
BOB EBENDORF: I was aware of that. I was aware that once they leave that space — which is now an environment — which is presented as a graphic experience, and that graphic experience happens to be primarily on the wall or in the center of the room as three-dimensional small sculptural forms — I realize that that attitude and that experience will be assimilated in very strange ways once it's over. But it's amazing how many of the people who spoke to me or purchased something wanted to continue to see that piece in the same context. "Would you make that form up so that when I have it in my home it will be just like I see it here and then I can wear it and put it back in that context." So



Sculpture. Acrylic, copper, goldleaf, nylon line. 11"x11". 1980. Photo: Little Bobby Hanson



Collection of nine pins (2"x2" each). Silver, gold, copper and bronze. 1980. Photo: Little Bobby Hanson



Detail of above.

they seem to be becoming educated, or at least appreciative of my thought or concept about how these particular pieces can be viewed and enjoyed. Others will be disseminated and end up in boxes or on dressers or on a counter and may never go back into that same context. I can't control that. I can talk about it or try to share that, but, even though you wonder how sensitive some people are who purchase your work, it seems like there is a sensitivity being felt. You observed that yourself, that some people didn't even know how to deal with the pieces at first — if they were metal or just glued on to a piece of paper — they weren't too sure. So there was a crossover taking place.

JAMIE BENNETT: Your work has always possessed a graphic quality, that is, there have always been markings, mechanical and gestural on your forms. Recently you have become far more gestural — no longer do we see the prepared stamped surfaces. There almost seems to be on some an appeal to the abstract expressionist aesthetic, quick marks and characteristic lines, surfaces that have subtle change (there is no indication of subject matter). What has been the reason for these changes and how will they affect what's ahead?

BOB EBENDORF: It's interesting you mention stamping and the very austere imprinting onto the surface of earlier work, compared to the most recent work. I think it has come about from learning and maturing — we examine ourselves. I know when I did those earlier pieces, I was anxious to get right to the surface and embellish. Now, having gone through that I'm more mature and my methods are more mature. I did feel these pieces were fresher, like drawing and painting on the metal surface, they were fluid, not programmed.

JAMIE BENNETT: There was a group of nine pieces in the show with multicolored patinas. You took these forms and developed their surfaces. Could you speak about them?
BOB EBENDORF: I had the opportunity to be part of an experience with Tom and Bruce Baker, two goldsmiths who have their shop in Vermont. I responded strongly to a series of cast pieces they had pulled from rock forms — natural terrain — so they said, "Here, see what you can do with them." I did take the pieces and began to work with patinas and coloring processes. I had taken a lot of photos of coastal terrain while in Norway. I used these as a resource, particularly subtle color changes. Terrific experience. I have worked before with others, with photographers, other metalsmiths, yourself included. These experiences have always been very rich for all involved. I hope this has been a growth process for them as well as myself.
JAMIE BENNETT: What limitations do you set for yourself as you begin to work?
BOB EBENDORF: Certain limitations were relevant to this body of work. I wanted a series of nine pieces that would hold together. The series format helps to develop a maturity as the work crosses back and forth — the pieces have a tendency to strengthen. And I have a chance to work a concept out, instead of jumping from a cup to a wall piece to a belt buckle. That's kind of like a potpourri. But sitting down and dealing in a certain context, I set limitations, focusing my attention — being much more critical of myself and sensitive to the direction in which I'm trying to take the piece.
JAMIE BENNETT: How long have you used the brooch as a format?
BOB EBENDORF: Maybe too long? I'm thinking back when I first came to New Paltz — I was making some objects and jewelry, some silversmith forms. I began to narrow down to a brooch format, about five years ago. I just said, tongue in cheek, perhaps, too long — that could be a very interesting question to myself: Bob, can you deal outside a brooch form? Of course I can.
JAMIE BENNETT: Is there an ascendency of concept over the object?
BOB EBENDORF: I feel personally that the work could be just marks on a piece of paper or it can be a form where I think the composition works better standing in the corner or sitting on the arm of a chair, so it's dealing with placement, space in an aesthetic context. It just happens that I choose different methods of developing an idea. The object is unimportant.
JAMIE BENNETT: It seems that in our field there are many using the format or the vernacular of the jeweler and not necessarily making jewelry, but perhaps making pieces about jewelry. Do you have any feelings about this?
BOB EBENDORF: I feel that's what I'm doing at this point. In using those techniques, those tools — and some of it does have a clasp on it or it fits over the finger or hangs from the ear, and others don't belong there — I feel that object or that form looks better or stands better hanging in midair.
JAMIE BENNETT: What were your reasons for including drawings in the exhibition. Do you feel they give credence to the jewelry?
BOB EBENDORF: I don't believe so. Drawings have in the last five or six years become to me some of the most exciting parts of the experience. Those marks on a piece of paper or the tear on the crinkles are of a media that is totally different from metal. That information, that experience has given me the foundation to work with my concept and to then move to the hard stuff. I have also felt that many times that information isn't seen and I do have a joy of, when I finish an object, a form, coming back and taking pencil and paper to illustrate it, to work with it, to rehash it, to re-experience it. I'll draw midway and sometimes end up drawing afterwards. But I don't think I brought those drawings into that space to give the work credence as art or to give it some kind of back-up that it is something more than jewelry.
JAMIE BENNETT: Although you do a good deal of sketching and drawing in preparation for your pieces, those pieces in the exhibition still yield the marks of process and of spontaneity. Do you not follow your preparatory sketches, or is it the quality of the drawings that you're trying to get in the pieces?
BOB EBENDORF: I really feel it's the quality of the drawing in the pieces. I don't follow the scale — they're not like architectural measurement and layout followed to a T. They're not a template that I go to my workbench with. I am trying to take that energy and the vitality of the drawing to my workbench.
JAMIE BENNETT: Have you been able to make your work accessible to the collector, who traditionally has had limited exposure to metal?
BOB EBENDORF: During the opening of my show, people came and asked me to talk about the work. They wanted to know what I was trying to say. And, in turn, I guess I could give them some security in what they were looking at, or some personal time with the artist. Also, I wanted them to understand. If they were serious about purchasing the piece, I wanted them to understand the context of my statement, my concept, how I was dealing with the information as well as how the metal was being treated. Because if they're wearing this object on their wrist or on their lapel and someone says "Gee, that's so strange, I've never seen anything like it. What is it, where did you get that?" I would like for them to share some of my feelings about that piece. I think this does have something to do with the fact that I spend so much time in the classroom dealing with that and all of a sudden when out with friends or in another context, sometimes I act as if I'm still an educator. I often ask myself what has been my most important input to contemporary metal: as an artist, as an innovator, as an educator or as an organizational figure.
JAMIE BENNETT: Which of these do you now feel is your most important role?
BOB EBENDORF: Being 41 years of age, I can't help but acknowledge how strongly I feel about being an academic metalsmith. I think my work and the people who view my work sense this is both an artistic statement and one from an academic goldsmith. And when I think about myself as an artist, I wonder what my frame of reference should be, how other people view my work. My own questions and answers. My yardstick is sometimes just my own ego.
JAMIE BENNETT: Why did you choose to put the David-Andersen pieces in the show?
BOB EBENDORF: I debated that for a long time because they definitely do not have the same attitude in the environment of the other pieces. Since I've been back from Norway, a number of people have asked to see the work, people who had been collectors or clients of mine, that were interested in purchasing a piece because they felt that the experience was an important part of my development as an

artist. The president of David-Andersen was in New Paltz two months ago and we talked about the exhibition coming up. He said, "You know, you are supposed to have those models to seel to private collectors or in galleries, but we just haven't gotten them to you yet." So I thought I should have them available for a viewing, because they've never been seen, as a part of my experience that was very important. These pieces deal with fine gemstones and precious metals and they are a different breed of cat. The other pieces — they're not a safe route; they're not a classic look. But I kind of enjoy throwing the two against each other — that jar or sharp edge against a dull edge.

JAMIE BENNETT: During the late sixties when you were making your memorabilia assemblages, were you concerned with being avant-garde? Being what Allen Kaprow talked about: if you weren't doing something new, you weren't doing anything at all?

BOB EBENDORF: I don't even think I was aware of that kind of conflict. I think there was a real joy — the raw naivete, because of being a collector of trash and materials and curio, to be able to step away from my jewelry bench and from that context and have this rich gathering of materials, colors and textures, and to put together compositions. That was exciting and important to me at that time.

JAMIE BENNETT: Your work has made some dramatic stylistic changes. Some of your contemporaries have been critical of this, yet you continue to investigate new directions and ideas and alter your aesthetic goals. Why?

BOB EBENDORF: I think it's very important for myself to feel that change. I like to walk that edge. To sit back and run that same format over and over again — I don't want to be there. I'm not comfortable there. I'd rather be pushing open other doors. That means change, and change can be frightful sometimes, not knowing whether it will work. I prefer that sort of challenge. The concepts I'm pursuing now could not work in the format I used five years ago.

Man and his pet bee. Pin. Mixed media. 1970

JAMIE BENNETT: When does what you're working on become unnourishing and when do you decide to look again?

BOB EBENDORF: When I have taken a concept or problem and have reached a level of understanding and it no longer represents an unknown or a challenge.

JAMIE BENNETT: Why don't you title your current work?

BOB EBENDORF: I went through that for a period of time and I found what I was titling them was insignificant. I don't want to try and tell something or get cute like: the pelican flying over Detroit. I'd rather deal with the visuals, that's what's important to me.

JAMIE BENNETT: Should metal act as its own resource?

BOB EBENDORF: No. One thing I feel very strong about is the things that come off my workbench are from experiences — those things I touch, smell, feel — my surroundings.

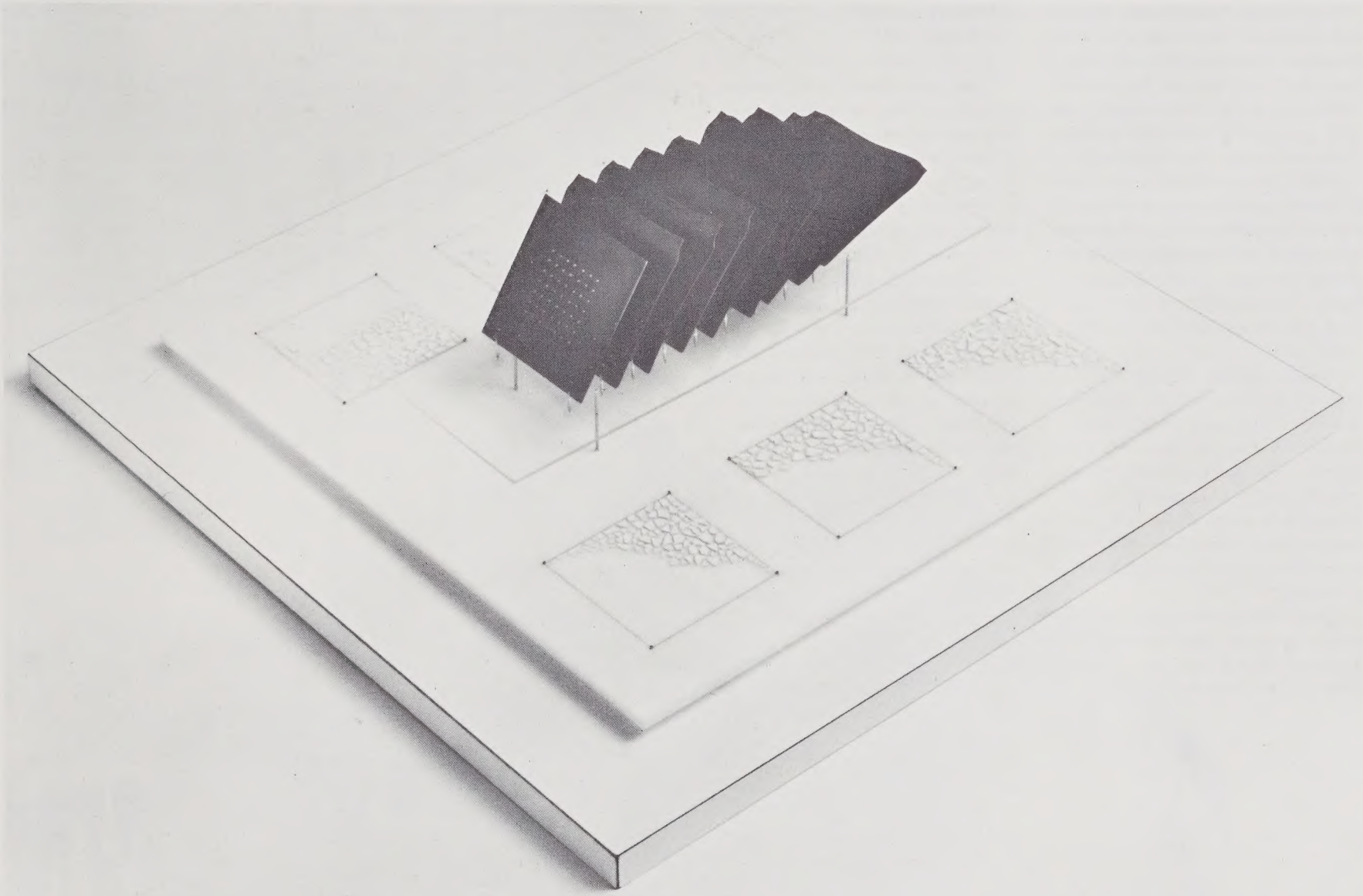
JAMIE BENNETT: Yet, I know having been a student of yours, you do place a good deal of emphasis on knowing the heritage and the development of the goldsmith.

BOB EBENDORF: Yes, the foundation is important. It underpins our development. We should be aware of it and be verbal about it. There were periods when the art of gold and silversmithing was very rich and expressive. We should be proud of that.

JAMIE BENNETT: You've recently changed your working environment. Did that have an impact on your method or approach to work?

BOB EBENDORF: Definitely, it's had a physical impact because in the winter months I would go out to the barn/studio outside the house in galoshes and gloves with just a small heater and wait until it got warm enough at my bench to work. I found moving my studio into the house, I'm more comfortable working. This might have something to do with my age, but it's more comfortable, and, too, I'm in an environment with objects on the wall or rugs or textiles that I feel a warm kinship to.

When I first moved to that house, Heikki Seppa said, "Bob, see that barn ten feet away — if you put your studio in there you can detach yourself from your environment. No telephone. Whether you go two hours by car or two minutes by walking, you can still be totally isolated, by yourself, and work." And that worked. But now that I find myself inside the house, working in the same space where I cook in the space upstairs where I sleep, there was a constant thread that was there because as I walked downstairs to go to the kitchen, I saw the work in progress. It was not like going from my house to the studio by car.



Sculpture. Mixed media. 1980. Photo: Little Bobby Hanson

JAMIE BENNETT: How do you deal with the time divided between your professional and your personal life? I know I was shocked to hear you actually took a real vacation this year and didn't pack files or slides.
BOB EBENDORF: You're right, I did actually take a vacation. I found myself lying on the beach, swimming, eating, just taking it in. That is a change. Maybe that has something to do with being a bit older. I've gone through some heavy personal changes and professional changes. I examine my ability more carefully to deal with certain things. I've had the experiences now to reflect on, the bitter and the sweet. I don't worry about being an artist or metalsmith, perhaps because things are more in sync now. I'm more relaxed with myself, not feeling the stresses of the peer group or being on top of things — the best artist or the best teacher. I just do the best job I can. It's much more satisfying to deal with that at the end of the day. Having been married and not now, that's an experience I am very sensitive about, and it certainly had a great deal to do with my self-evaluation.
JAMIE BENNETT: What's ahead for your work now?
BOB EBENDORF: At this point, that's somewhat of an unknown. Perhaps I'll focus on other horizons, because I do feel this body of work in part has come to pass and I'm looking forward to getting a breath of fresh air and resurface, perhaps investigating the sculptural format more, certainly more of the drawing I so enjoy. The metal end is very open right now. It's very exciting to grow and anticipate what's to come. I look forward to tomorrow.

JAMIE BENNETT is an assistant professor in the metalsmithing department at the Memphis Academy of Art, Memphis, TN. He is currently on leave and is a visiting professor at the Program in Artisanry of Boston University.

Full-color catalogs for Bob Ebendorf's show, with foreword by Heikki Seppa, are available for $5 from: Florence Duhl Gallery, 31 West 54th Street, New York, NY 10019.

Young Americans: Metal Observations of Award Winners

by Paula S. Dinneen

The "Young Americans: Metal" exhibition at the American Craft Museum in New York from January 16 - March 18, and currently on tour, displays some 208 objects by 134 craftsmen from all over the country.

This show reveals not only a new wave of young metalsmiths, but also tells of a growing trend in the crafts movement to reach beyond traditional metalsmithing techniques and functionalism to artistic pluralism.

Seven award winners were chosen by jurors Mary Lee Hu, Albert Paley and Alma Eikerman. In their statement, the jurors emphasized that: "New dimensions, achieved by experimentation with materials and techniques, reveal an enormous advancement in the presentation of ideas."

Here the seven award winners voice a wide assortment of feelings about shows, juries and artistic intentions.

Gregory Litsios

Rochester, NY

"I was surprised," said Gregory Litsios, when he learned that his work had won an award in the "Young Americans" exhibit.

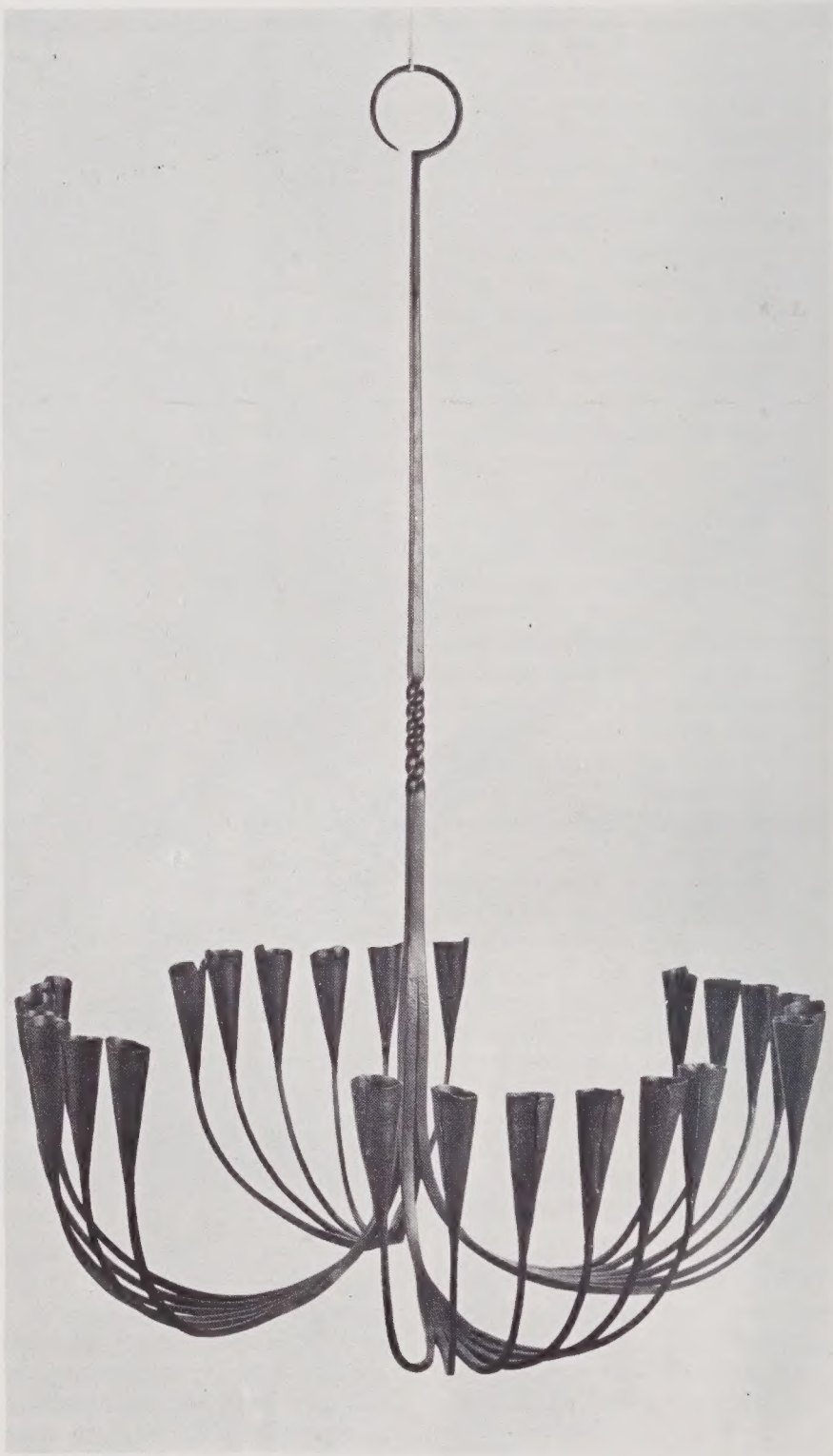
The forged iron chandelier which he entered is the largest in a series of functional pieces utilizing a repeating cup element. Litsios produced the work specifically for this show.

"A joining problem," he explains, "is motivation to begin a new series, explore new problems, new arrangements. I'm using traditional techniques with traditional forms." Forge welding is a traditional blacksmithing joining technique with which he now works. The challenge in this piece was in stacking on end six elements which would be forged together and then split apart to form the radiating arms for the chandelier. "Presently, I will be working towards combining these techniques with more contemporary design. The techniques allow one to solve problems not easily achieved with modern technology."

Last year Litsios participated in the Northeast Crafts Fair at Rhinebeck. "The people you meet being involved in shows are also motivation," he adds.

As to the "Young Americans" show, he comments, "I was excited by all the pieces which involved heavy machinery — the use of stainless steel and aluminum. The public will begin to notice this trend."

"At the moment I am seesawing between doing production pieces and exhibition pieces. There were very few seriously functional pieces in this show," he notes, but rather what he describes as work "playing with levels of function."



Chandelier. Mild steel, forged, welded. 47"x33"x33"

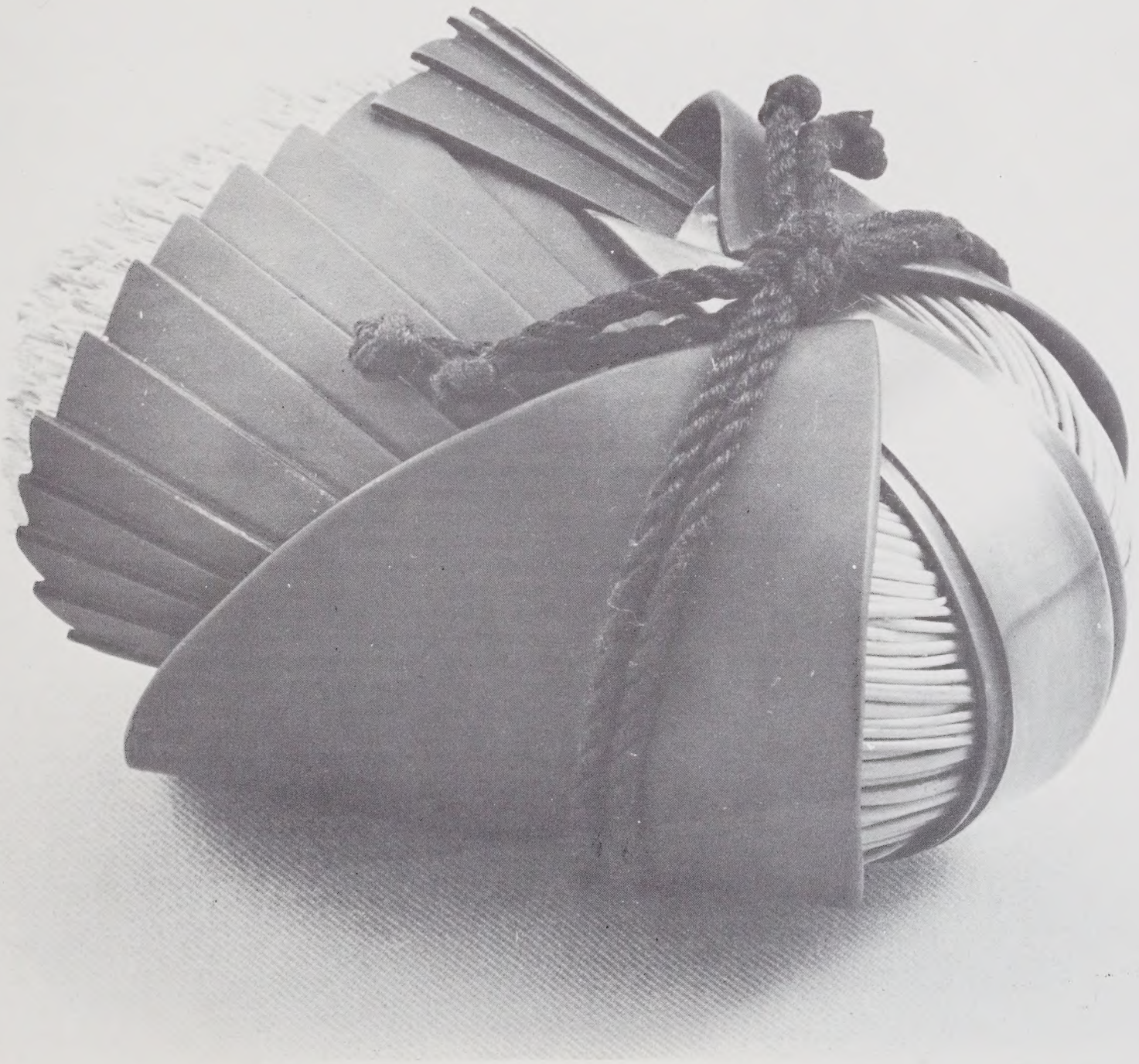
Carol Kumata
Pittsburgh, PA

"Contemporary metal is moving toward sculpture and away from function. As one moves away from function and scale, the lines between art and craft become blurred."

Carol Kumata is represented in "Young Americans" with two pieces, illustrating two strains in her work. Surreal in nature, *In the Time of the Yellow Emperor*, she explains, "is inspired by the work of the writer, Jorge Luis Borges." She uses literature as a reference and creates the piece to become part of that imagery. *Wrappings #1* she describes as representative of the more abstract nature of her work. Here she integrates the commonplace with the formal, with Oriental overtones. "I have an image in my mind which I'd like to realize in 3-d. If I knew from the outset what the piece looked like, I wouldn't bother making it."

She feels that jurying systems can be difficult to understand. "For most people entering shows, it remains a mystery what motivates a jury. Selection of work is on quality and style." Not being sure what other method would be better, she adds, "I was pleased that the system for 'Young Americans' included jury by slide and work. I find it objectionable when work is awarded by slide. Then we are awarding the slide and not the work."

"Exhibiting is communicating," maintains Kumata. Recognizing that she makes the work for herself, she notes, "It's important to me that other people see it."



Wrappings 1 object. Bronze, copper, steel, cord, straw. Fabricated. 4"x3"x3"

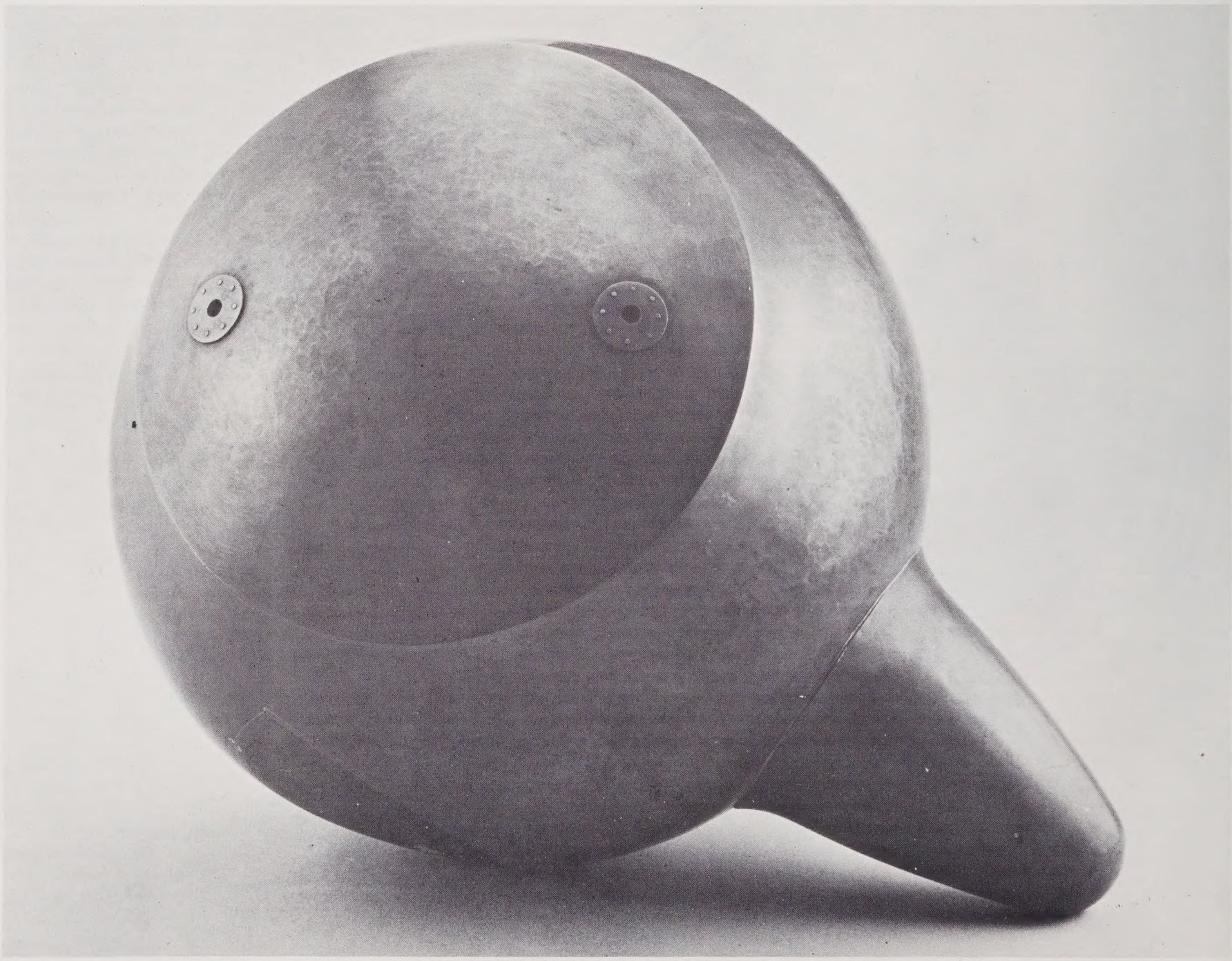
Rod McCormick
Philadelphia, PA

"The 'Young Americans' show represents the influence of the university and art school programs, which is really a very small part of the total crafts picture."

However, although the focus may be narrow, Rod McCormick asserts that for individual craftsmen, "entering any show, being an award winner, gives exposure, publicity and often leads to new challenges. A museum of this sort draws a wide audience of many persuasions. A good professional-level show of this size tends to have less of the introspective nature of smaller shows. Personally, when entering shows I try to send a range of pieces, so if the jury is a bit focused I will have a better chance of hitting that focus."

McCormick's award-winning *Hse Sculpture* evolved over several years. "I'm dealing with forms — the arrangement of forms. I enjoy seeing what forms I can make the metal take and what forms it's willing to assume."

The climate today is one in which "anything goes," McCormick claims. "Juried exhibitions provide a means to distill this climate. Having expert witnesses decide which pieces are worthy of exhibition is basically a good concept." Citing that juries today attempt to show a range of styles, he adds, "they do not have the iron fist in determining what can and cannot be done, as in past generations. The work stands for a lot more than what people say about it."



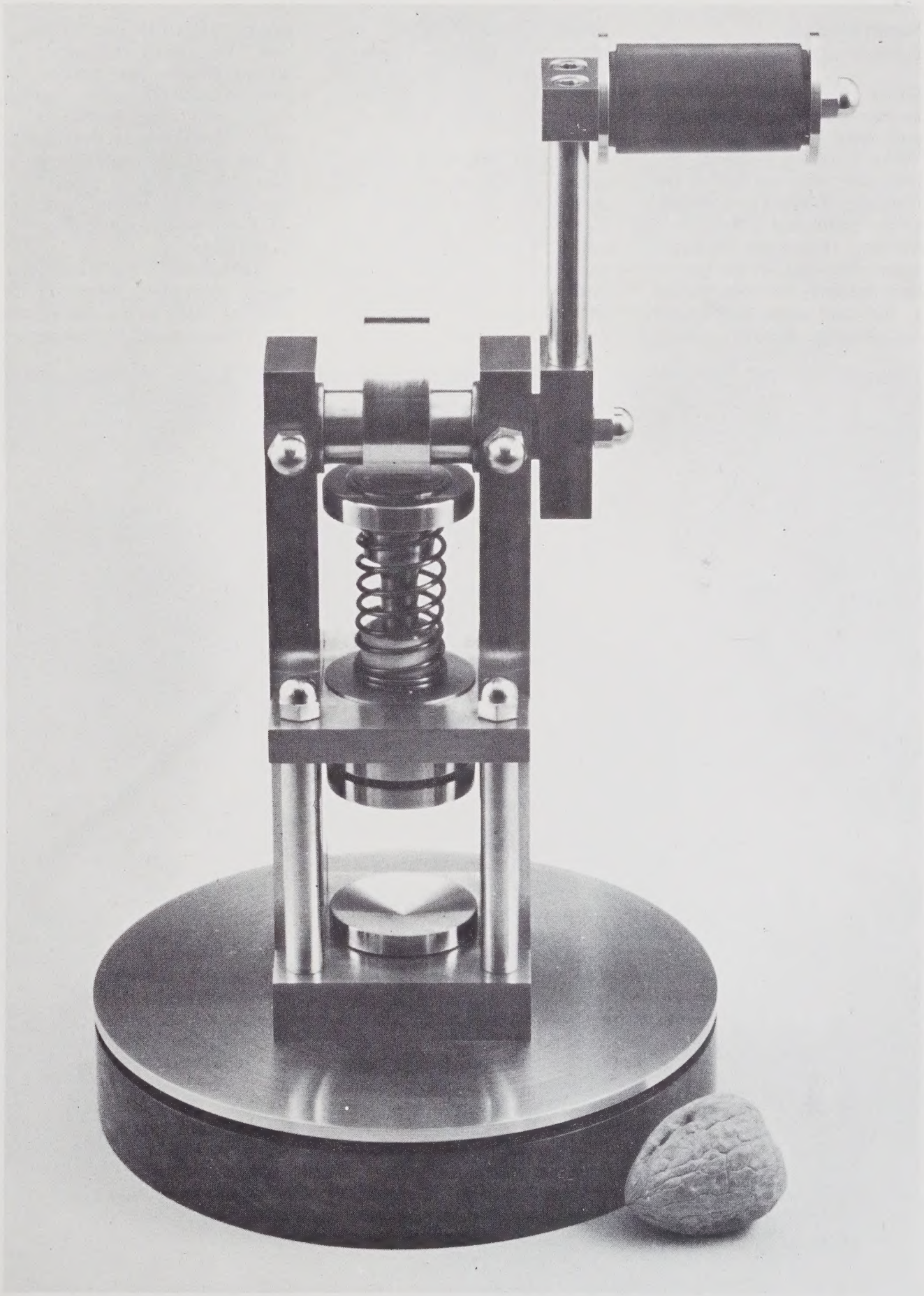
Hse sculpture. Bronze. Raised, fabricated, riveted. 12"x15"x11"

Randy Jones
Carbondale, IL

The award-winning *Nutcrackers #1* and *#2* are highly representative of Randy Jones current work. "The aesthetics of my work," he explains, "is the result of function which dictates form in every way." Stainless steel, brass and walnut are among the materials he uses, because their intrinsic qualities seem most applicable to the functional nature of the work.

Jones prefers not to intellectualize about his work. On the question of shows, he states, "I just want to *do* my work. Shows really aren't important to me — they shouldn't determine your goals or influence what you do or how you direct your career." However, he admits to being "very surprised — it's exciting to be getting so much attention." There was "a lot percolating" about "Young Americans," so he entered, and with this, one of his first competitions, came up an award winner. He feels that "a diverse group of jurors makes a well-balanced show, allowing many preferences — that's important."

Hoping for the economic independence to continue high-quality metalsmithing, Jones asserts, "the most important thing to me is to produce the work and try to learn from it."



Nutcracker #2 (S.O.H.C.). Brass, bronze, copper, stainless steel, teflon, walnut. Machined. 8"x2"

Susan Hamlet
Stillwater, OK

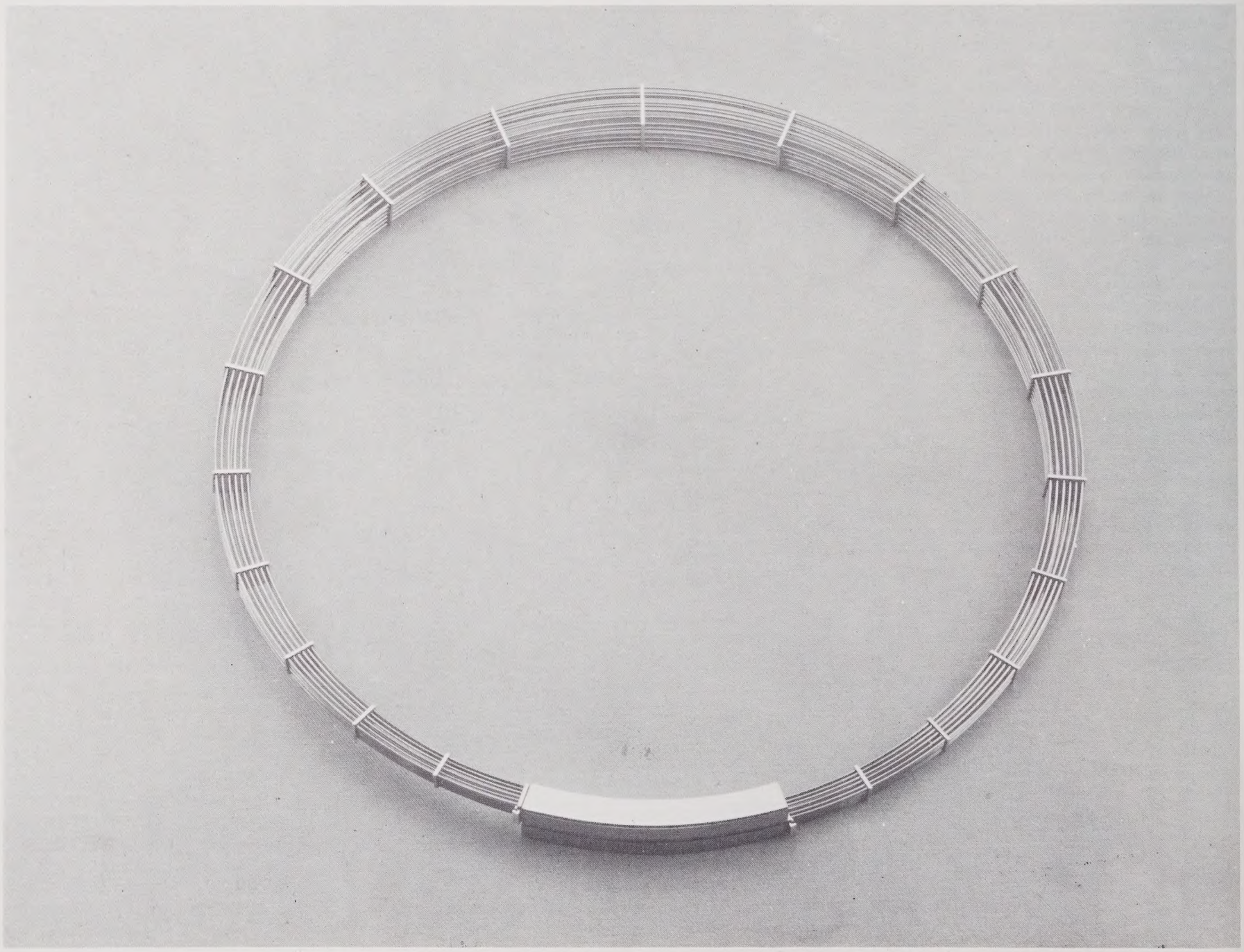
Susan Hamlet describes metalwork today as, "looking more and more to the fine arts. There is strong evidence of high-tech with the use of the machine. There is also evidence of the traditional Oriental sensibilities. They share something, these two areas, in the sparcity and necessity of everything."

Her own work, looking very machinelike, although handmade, is broadly inspired by mechanical systems, structure, architecture. "I like to draw from other sources, putting them into jewelry," she explains.

One of her three pieces which are part of the "Young Americans" show, *Flexible Column #12 Neckpiece*, is the result of both inspiration from the work of architect Frei Otto and much investigation into different flexing characteristics. Describing the piece, she explains, "It is stiff and snakelike. The spring steel wires on the interior are straight and the piece flexes and bends on all four axes, forming a ring." Depending on the shapes of the wires and their arrangement, she is able to calculate the amount of spring in each piece and how it will conform to the body.

Hamlet feels "this is a major show. I am really pleased to have my work in the American Craft Museum and to have won an award in this show. However," she adds, "the pressure to exhibit and produce is intense."

For her the aspect of research from one piece to the next is very exciting. "I do not see myself settling into a style," she adds. "I want each piece to be a step forward, presenting new ideas and not just cranking things out."



Untitled vented container. Bronze, glass, applied patina. Die-formed, fabricated. 8"x8"x8"

Wendy MacGaw
Lathrup Village, MI

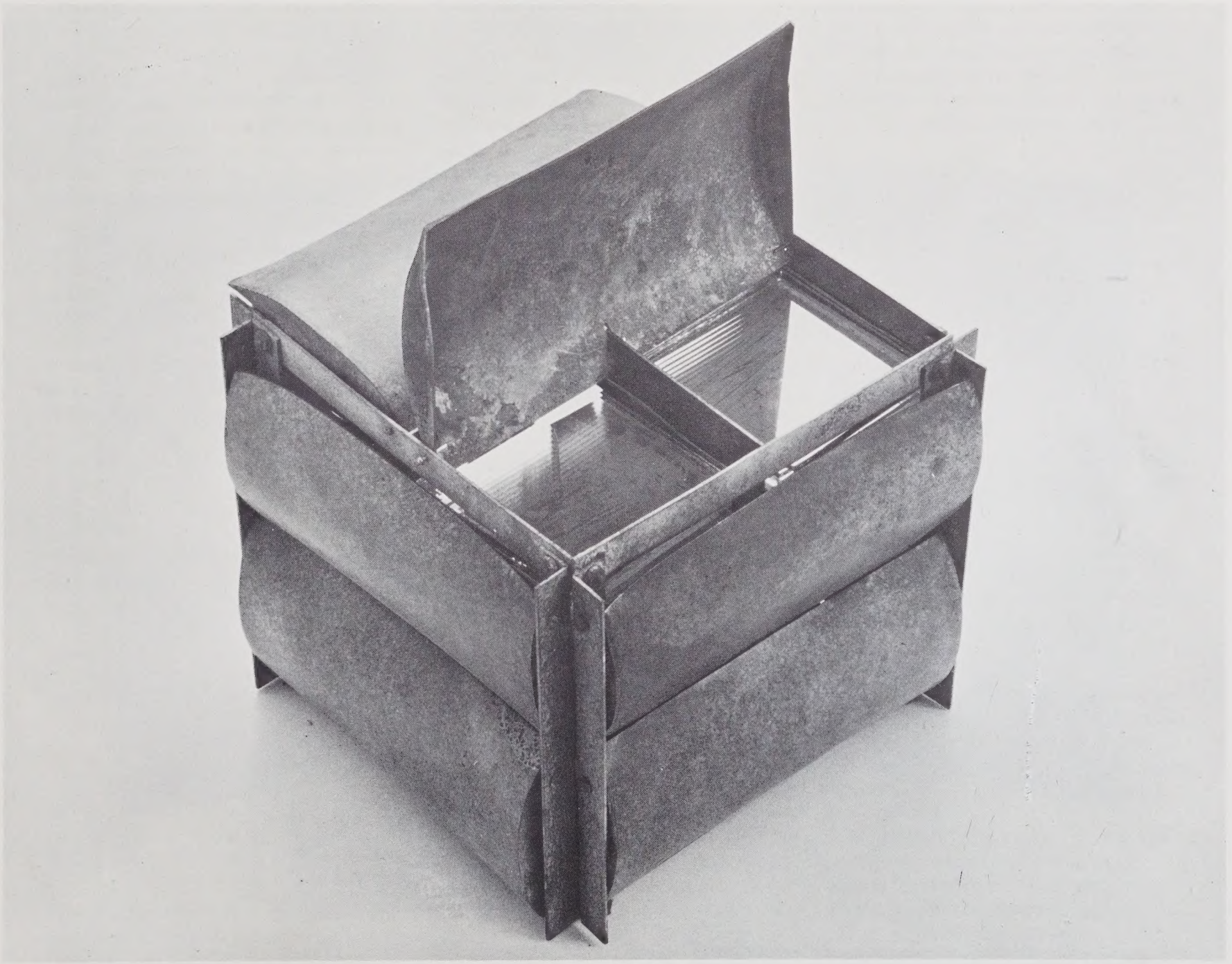
Wendy MacGaw predicts a future when "people will be concerned with what metal is doing rather than how much it's worth."

Her award-winning bronze and glass *Vented Container* summons images of times past and allows the viewer to travel into a dreamworld by making suggestions of something he's known or seen before. Recurring images are the motivation behind her work. "I like to feel they are points for pleasant revery," she explains. The "Young Americans" show has significance because it's "going to let people know that metalwork today is not just prissy little pins and rings, and that it can be as diverse and exciting as sculpture."

MacGaw received her undergraduate degree in sculpture, but it was a major metals exhibit that gave her inspiration to move to metalsmithing. She feels that working in crafts gives her a great degree of self-sufficiency and artistic independence. "Previously my work was large and required a great deal of machinery. Now I am working smaller and more directly with my materials, but the work has not lost its impact."

For MacGaw, entering "Young Americans" was "a challenge to see if metal worked in nontraditional means could be accepted as valid."

"High-caliber shows and competitions are extremely vital for craftsmen," she points out, "because it's important to know and sense what people in the field are doing."



Flexible Column #12 neckpiece. Stainless steel, sterling silver. Fabricated. 8½"x8½"x½"

Bruce Metcalf
East Boston, MA

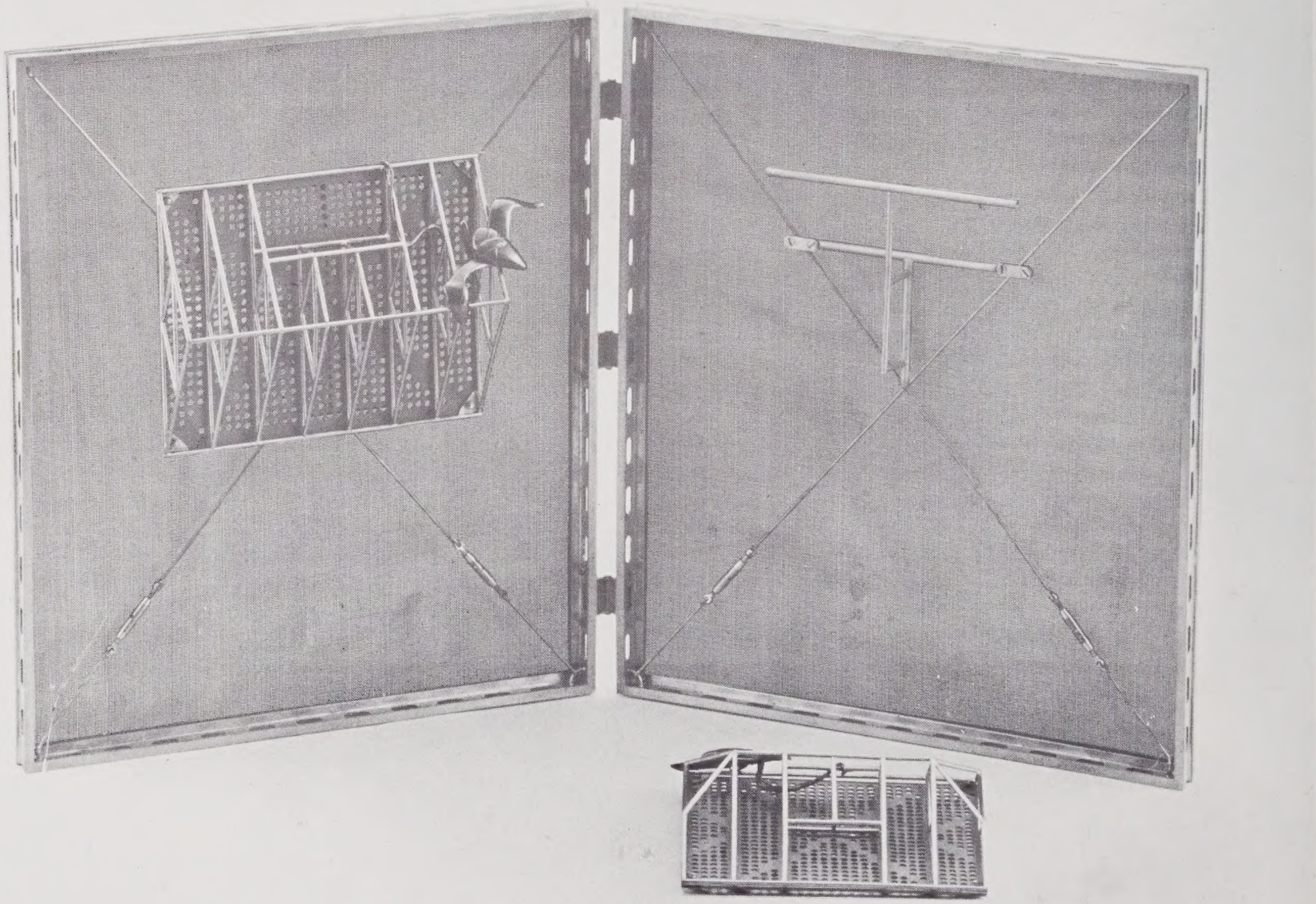
Bruce Metcalf entered "Young Americans" because it "was to represent the best of a new generation of metalsmiths," and it would be a "signal show, a landmark."

Metcalf's exposure has been concentrated in the gallery circuit where the buying public is mostly sophisticated art patrons, who tend not to attend craft shows. He maintains, however, that "shows are vital, because they provide channels of communication both for the established as well as the up-and-coming artist. Shows and award winning have little influence beyond the realm of craftsmen."

Metcalf is represented in this show with two pieces which are typical of recent developments in his work. Conceptually, he describes his work as autobiographical in nature, as "pictures of states of mind." One piece, entitled *Flying Vessels Triptych*, is representative of the human personality interacting with external conditions. Its "pins" are sculptural objects to be worn or left as part of the wall painting. He explains that although he is not the first to deal with this concept, he's "interested in what happens to a piece of jewelry when it's not being worn. It incorporates the jeweler with the metalsmith."

Metcalf describes "Young Americans" as, "one of the best," a show with strong "European influence," evidenced by the overtures towards the rational, clean and geometric. Less visable are the decorative and the embellished.

Paula S. Dinneen is an artist/metalsmith living in Boston.



Flitting in the Structure diptych (pins). Brass, silver, paint. Fabricated, painted, forged. 7"x12½"

Nickel Silver Perforation

by Paulette Myers

Introduction

Perforation is a metal texturing technique accomplished through proper heating. If the heat source meets certain qualifications and the metal, specifically Copper Development Association Alloy #752, is heated properly, its thickness will expand to approximately three times the original gauge. The perforated sheet becomes a three-dimensional porous matrix structure, very strong, which allows some forming after perforation.

I came upon this technique of nickel silver perforation in 1972–1973 at Washington University during my Master of Fine Arts thesis study. The study concerned the testing of 13 different alloys with reticulation, comparing results with two different types of surface layers as the protective skin: oxide build-up versus copper-plated surface.

When the nickel silver sample was tested for reticulation, at first it failed to evidence any reticulation variation. It was not until the sample was removed from the acid that its perforated structure was realized.

In 1973 I began to design pieces with perforation. I discovered only a couple of years later that the original metal was nearly depleted. Replacing it proved to be an extensive search, since the original nickel silver alloy was not known to be #752.

After purchasing and testing a number of nickel silver alloys of varying chemical compositions, it finally became necessary to have quantitative analysis done on the original metal to identify it and its perforating characteristics.

Funds were limited, so the testings were few. The first results came in 1976. There was so much more to research. In late 1978, Southeast Missouri State University granted funds for further research. These funds have aided greatly in the development of perforation to its present stage.

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Metallurgy

The metallurgical explanation for perforation has come from three main sources. The first is from the known facts concerning the production of nickel alloys at the foundry. The second is from experiments involving perforating procedures conducted on various nickel alloys in the studio with the torch or kiln. The third source is data collected through metallurgical testings done in a laboratory, involving chemical analysis and photomicrographs of metallographic sections.

Foundry Practices

In foundry practices, special procedures are followed involving alloys containing nickel. Copper-base alloys with nickel must be poured at a much higher temperature than those without nickel. These alloys, because of their higher temperatures and also because of their nickel content, have a "greater" tendency to absorb gases. Nickel has a natural affinity to gases. Therefore, the standard procedure is to add a degasser, also termed deoxidizer, such as manganese, magnesium or lithium. The addition of the deoxidizer must be carefully controlled. Factors which are essential include: (1) the amount per quantity of molten metal; (2) the temperature of the molten metal when the deoxidizer is added; (3) the reaction time necessary for it to effectively degas before the pouring is done. The degasser links molecularly to the free and combined oxygen, removing all such gas from the metal. Without the deoxidizer, the gas pick-up would remain, causing porous metal. The amount of deoxidizer is based upon the needs for only the "one" given time of production. Therefore it is significant to note that the chemical composition of manganese requirement for alloy #752 is 0.50%, while after perforation of the metal the count is 0.14 to 0.19%. This low percentage of deoxidizer is not in high enough quantity to prevent gas absorption, one major necessity for perforation.

My prior experience with nickel silver casting shot, alloy #796, included a degasser. This metallic degasser was to be added prior to casting, once the metal had reached the liquidus temperature. Prior to its addition, the metal exhibited tremendous catastrophic oxidation, identified through small volatile explosions. This phenomenon ceased, once the degasser was added and interacted sufficiently. The molten metal assumed a state of calm, and casting followed.

Studio and Laboratory Experiments

Alloy #752

Experiments conducted in the studio with different nickel alloys, listed in Table 1, show alloy #752 to be the one which perforates with the greatest predictability, controllability, and variation. Also, all metallurgical testings (lab experiments) have been conducted only on alloy #752. The lab tests were designed to establish the necessary data on the "before," "during" and "after" stages of perforation for metallurgical evaluation and identification.

Alloy #752
Studio Experiments

All perforation tests utilize the torch or kiln as the heat source. It was found that a highly oxidizing environment is essential for perforation to occur. The kiln does offer this environment, since perforation done in the kiln involves a much longer time factor. The "slower" heating at elevated temperatures allows time for oxygen interaction causing surface and internal oxidation. The torch, with a highly oxidizing flame, creates a much more oxygen-rich environment. Therefore, an excessively prolonged heating with the torch is not necessary, as it is with the kiln.

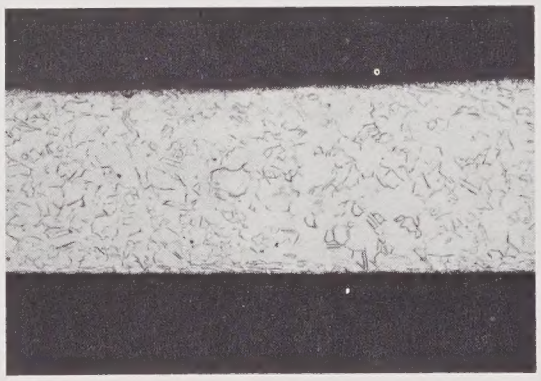
Studio tests conducted to evaluate the relationship of perforation and oxidation involved fluxing versus not fluxing. The fluxed sample would not perforate. Also, a reducing flame was tried with no resulting perforation. Torch flames varying from reducing to highly oxidizing were tested with the results clearly indicating a direct relationship between the degree of perforation and the degree of oxidizing flame. Therefore, as the ratio of oxygen to gas increases, perforation increases.

Studio tests using the torch as the heat source also examined the time factor. Slower, prolonged heating of perforation caused greater swelling and larger perforated craters. For example: with a #752 sample measuring 5" x 2½" x 18 gauge,

TABLE 1 Chemical Composition of Alloys

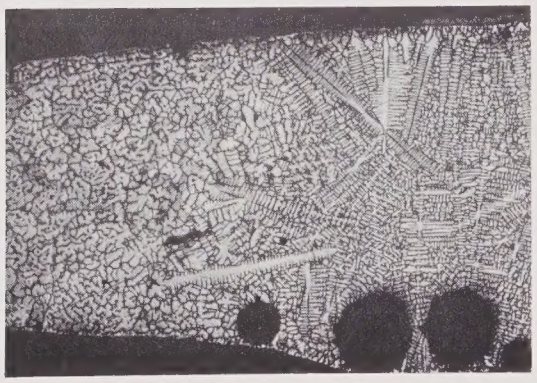
Alloy		Copper	Nickel	Zinc	Manganese max.	Silicon max.	Iron max.	Lead	Carbon max.	Sulphur max.	Chromium	Aluminum	Titanium	Solidus	Liquidus
752	Nominal Composition	65	18	17										1960°F	2030°F
752	Chemical Composition	63.0-66.5	16.5-19.5	bal.	0.50		0.25	.05 max						1960°F	2030°F
770	Nominal Composition	55	18	27										1860°F	1930°F
770	Chemical Composition	53.0-56.5	16.5-19.5	bal.	0.50		0.25	.05 max						1860°F	1930°F
782	Nominal Composition	65	8.0	27.0										1780°F	1830°F
782	Chemical Composition	63.0-67.0	7.0-9.0	bal.	0.50		3.5	1.5-2.5						1780°F	1830°F
976	Nominal Composition	64.0	20.0	8.0				4.0						2300°F	2400°F
976	Chemical Composition	63.0-67.0	19.5-21.5	bal.	1.0 max		1.5 max	3.0-4.0						2300°F	2400°F
Inconel 800		0.75 max	plus cobalt 30.0 min 35.0 max		1.50	1.00	bal.		0.10	0.015	19.0 min 23.0 max	0.15 min 0.60 max	0.15 min 0.60 max	2475°F	2525°F
Inconel 600		.05 max	plus cobalt 72.0 min		1.00	0.50	6.00 min 10.00 max		0.15	0.015	14.0 min 17.0 max			2470°F	2575°F

a.



b.

c.



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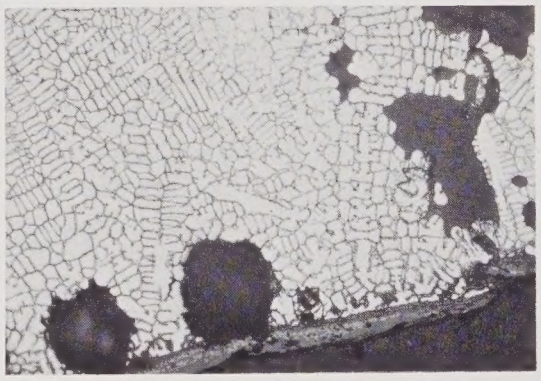


e.

1. Photomicrographs of cross section of alloy 752.
- a. 65X magnification of 24 gauge showing random distribution of nonmetallic oxide inclusions.
- b. 65X magnification; same as (1a) except subject to electrolytic etching to reveal grain structure.
- c. 65X magnification of 18 gauge showing recrystallized zone of area removed from torch location showing grain growth.
- d. 65X magnification of 18 gauge revealing: 1) swelling, 2) internal porosity, 3) dendritic solidification. Subjected to electrolytic etching.
- e. 400X magnification of 18 gauge showing internal voids beneath outer oxide layer at metal interface.

three minutes of perforating time would produce one perforated row 5" long. If that same sample and row took one minute, the swelling would be much less.

If the heat source is the kiln, the time is greatly increased, to approximately 15 minutes. One major difference to note is that the 15 minute process involves the heating of the "entire" sample, all at once. The localized torch method perforates repeatedly in sequence, with any one given area involving possibly 20 to 30 seconds.

Alloy #752
Laboratory Experiments
(Photomicrographs)

Metallographic examination of a series of #752 samples tested the "before," "during" and "after" samples. These tests identified the metal-gas reaction which occurs at high temperatures.

The "before" photomicrograph (Fig. 1-a) reveals the random distribution of nonmetallic oxide inclusions at 65X magnification of a cross section. These are present in the metal coming from the foundry. These oxide inclusions or residual gases are one factor which promotes perforation. But, a "low" concentration of residual "degasser" additives is also necessary, as exemplified in the chemical quantitative analysis of manganese content given earlier in the "Foundry Practices" section. The presence of a large quantity of degasser or deoxidizer will prevent perforation.

The second photomicrograph (Fig. 1-b) is the same cross section sample as the first, except that it has been electrolytically etched to reveal grain structure at 65X magnification. This grain structure will undergo growth when heated.

The third cross section (Fig. 1-c), also at 65X magnification, illustrates the initial stage of perforation slightly removed from the torch location and the recrystallization zone grain growth.

The fourth photomicrograph (Fig. 1-d), also a cross section at 65X magnification, shows a perforated area revealing: (1) swelling, (2) internal porosity and (3) dendritic solidification. This sample has been electrolytically etched to reveal the dendritic structure.

The fifth cross section (Fig. 1-e), now at 40X magnification and electrolytically etched, identifies the outer oxide layer and the internal voids created "beneath" the metal interface.

Alloy #752
Laboratory Experiments
(Evaluation)

Most alloys exhibit a resistance to the gas permeability below the surface or interface. Other alloys will have oxidation on the surface only.

Alloy #752 does allow for internal gas permeability. The oxidizing atmosphere creates an oxide layer consisting of copper, nickel and zinc oxides. The chemistry of this layer permits oxygen diffusion and therefore oxygen interaction with atoms below the interface as the heating approaches the solidus temperature of 1960°F. These oxides perferentially form in the metal matrix, since the alloy is not homogeneous or not a 65 copper, 18 nickel, 17 zinc ratio throughout. Segregation of the alloy, allowing ratios other than the 65-18-17, will automatically alter the solidus and liquidus temperatures. It will create the existence of a more than one-phase alloy structure. This nonequilibrium composition can result in the dilution of certain components in the new phases created when the solidus temperature is reached. The dilute components exhibit greater oxide formation than the base alloy components. This fact causes the specific internal oxidation sites. When this preferential oxidation occurs, a rapid and localized exothermic reaction results. That is, these sites produce their own heat, causing localized and vaporized oxides, and gases expand explosively producing the perforation effect.

While the chemistry of perforation is quite complex, total understanding is not required to produce perforation. Instead, practical application comes from the proper manipulation of the variables. Those variables include: proper heat source, correct alloy #752, the time factor, the surface on which the metal is placed, and the acid bath (discussed in "The Process" section).

Alloys Other than Alloy #752
Studio Experiments

Alloy #770: This alloy has a chemical composition close to that of #752, with the main difference that #770 has 10% more zinc and 10% less copper. However, this difference means that #770 does not allow perforation to occur. At certain higher percentages zinc can work against perforation in nickel alloys, but in smaller proportions, it can aid in the control of an othrwise violent eruption or gas absorption.

Alloy #782: This nickel alloy allows reticulation to occur, but not perforation. The chemical composition chart for this alloy shows a much lower percentage of nickel and a significantly higher percentage of zinc than #752. These two factors explain its inability to perforate.

Alloy #976: This alloy produces a catastrophic or explosive oxidation reaction, a tremendously high gas intake. This alloy was discussed in the "Foundry Practices" section. This reaction took place at the liquidus temperature, since the alloy was intended for casting.

Alloys Inconel #600 and Incoloy #800: Both #600 and #800 contain a high chromium additive. Chromium is added to these alloys to make them highly resistant to oxidation. Therefore, even a highly oxidizing atmosphere will not induce any perforation.

Torch Perforation with alloy #752

Materials needed:

1. Heat Source—torch, natural gas and oxygen or propane and oxygen
2. Bed —Fiberfrax (unless otherwise specified for varied results)
3. Metal —Nickel silver CDA #752
4. Acid Bath —Nitric or Sparex

Perforation of nickel silver requires heating the metal at approximately its solidus temperature. For alloy #752 solidus is 1960°F, liquidus is 2030°F. The torch systems which best control this temperature range are propane and oxygen or natural gas and oxygen. The flame should be highly oxidizing. To achieve the most oxygen-laden flame in relation to a given torch tip size, add the maximum oxygen possible. It is necessary, once the maximum addition of both gas and oxygen is obtained, to very slowly reduce or subtract gas until it cannot be reduced any further. This will allow for the maximum ratio of high oxygen to low gas.

The bed on which the metal is laid is a refractive material: Fiberfrax. This bed is not absolutely necessary, but it does help extensively in the total heating of the metal, especially the back surface. This material would be chosen if maximum swelling and total perforation of the sheet thickness is desired. Alternative beds with which to vary perforation effects will be covered at the end of this section.

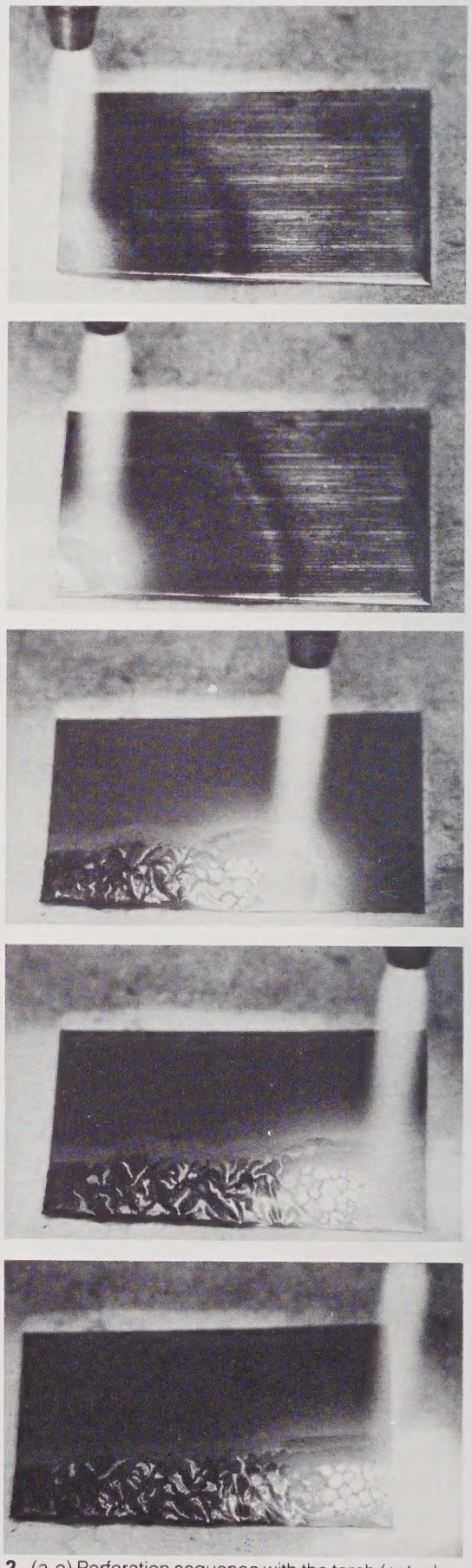
While there are no preheat treatments necessary for oxide build-up as in reticulation, the metal must spend maximum time in heating to allow for oxygen interaction with the metal. A fluxed surface produces very poor results.

The heating of the metal begins in one location, such as the corner. It should take a minute to get the localized area to the solidus temperature. Do all heating slowly. The flame should contact the metal about ⅓" up from the tip. Slow heating produces the greatest swell or expansion of the metal.

Table 2
Approximate Temperature Indicated by Color Change

COLOR	TEMP., °F
Faint Red	950
Dark Red	1150
Dark Cherry	1175
Cherry Red	1300
Bright Cherry	1475
Dark Orange	1650
Orange	1750
Yellow	1800
Brilliant Yellow	+

The first temperature indication to look for when heating is a radiating red glow under the flame. See Table 2. As this red glow radiates outward and heat increases, a secondary glow of orange, brighter than the first will appear inside the first, as seen in Fig. 2-a. At this time, the metal will begin to swell. The expansion of sheet thickness increases as the heat increases until a third, a brilliant yellow color appears. The brilliant yellow will be seen as small bright glowing dots which will appear in a cellular structure formation (Fig. 2-b). As the temperature of this perforating area slightly increases, the cellular structures become enlarged (Fig. 2-c). This final increase in temperature for perforation should occur not at the site of the flame, nor directly under the flame, but slightly behind the flame (Figs. 2-c, 2-d, 2-e). If the flame is held directly over the perforating area, overheating of that section will occur, causing a granular-looking surface or brittleness. It is advisable to be very careful in heating the end of a row. Since the end will heat up much faster than the rest of the preceding area, the flame should be moved more quickly here or it should be moved a little farther away to finish heating. As the torch leaves a perforated area and that area cools, the swelling will decrease more in some locations and will remain enlarged in others. This high-low formation of the metal will look like reticulation while the oxides remain on the surface. Very little perforation will be visible at this time, but the locations of the cellular



2. (a-e) Perforation sequence with the torch (actual size 1¾").

structures will ultimately become the perforations and craterlike sites (Figs. 2-c, 2-d, 2-e). Generally, the larger craters will be at high points of the ridges or mountainous structures, while the smaller perforations will tend to be at lower areas, unless uneven heating causes variations.

If heating is varied in the perforated areas by allowing the temperature to increase or decrease slightly, the resulting perforation will exhibit a larger network or a smaller network respectively. The size variation can be realized when heating, since the final size of the perforations relate closely to the size of the cellular structure visible under the torch.

Variations in perforation can be controlled by a number of other external factors. Some variations and their means are listed in Table 3.

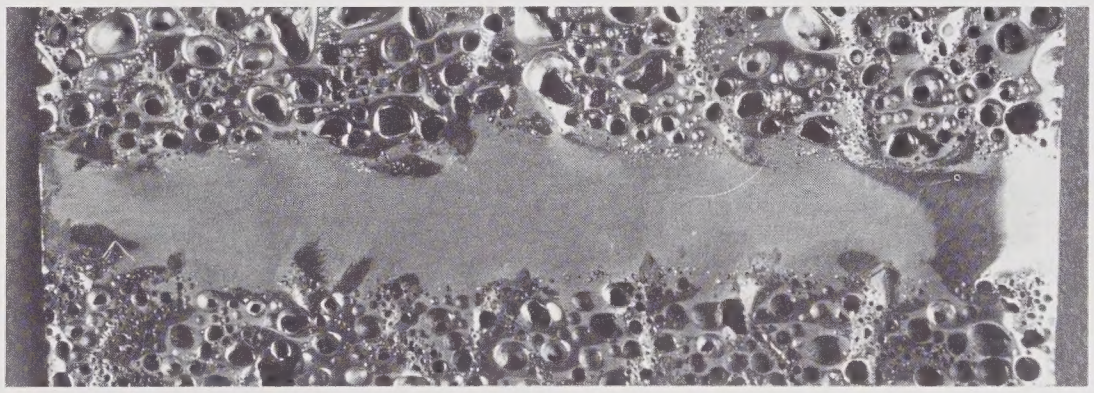
Another effect apparent with the use of the torch is row structuring (Fig. 9). To the side of the torch path will be small reticules, which bridge the swollen perforated row and the flat sheet area. When perforation rows are placed directly next to each other to minimize the path of the torch and to therefore emphasize texture only, row structure will still be visible on the back surface. Perforation is not as extensive here. Instead, slight reticules (Fig. 11) and swelling with small perforations offer a unique variation.

The swelling of the sheet, when nearing the solidus temperature, is extensive with this alloy, but torch use forces the swelling to undulate with extreme highs and lows due to sequential heating. The undulation is quite noticeable. The forceful blowing pressure of the flame also causes a height reduction overall.

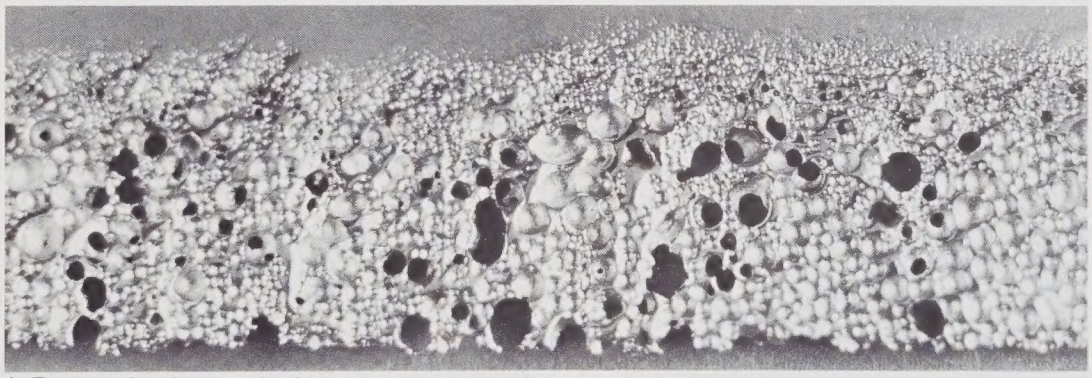
In row structuring, a spiral (Fig. 12) can be achieved by either starting from the inside moving outward or the outside moving inward. When working from the inside-out, it will, of course, take much longer to locally heat that inner area. Heat slowly and do not attempt to speed up heating by bringing the flame in closer to the metal. This will very likely cause overheating of the perforating area.

Table 3 Perforation Variations

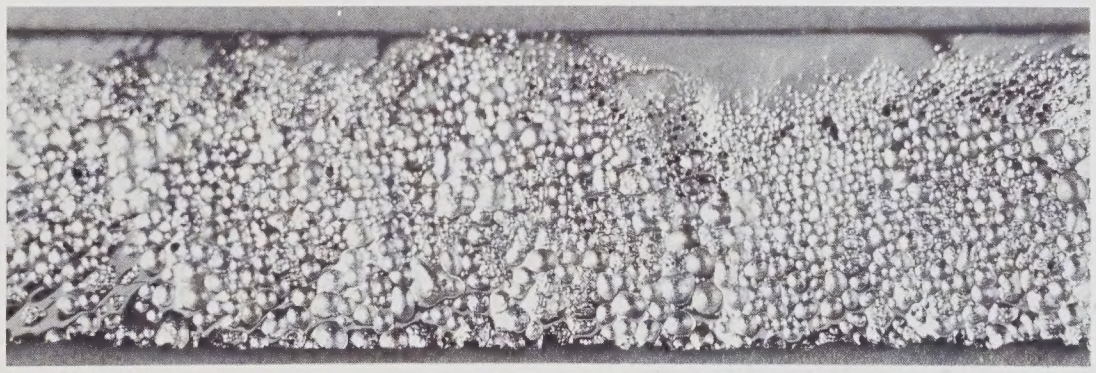
Perforation	Method	Figure
1. Small, minute perforation with complete hole transparency	Roll metal thinner, 24-26 gauge and perforate normally	#3
2. Small, crater perforation with minimal hole transparency	Work with 20 gauge or thicker; (a) position flame closer to metal surface and move flame over surface at a faster rate, not allowing much expansion, or (b) have a slightly less oxidizing flame	#4
3. Small perforation in the form of surface crater formation on one side of sheet with no transparency and minimal swelling	Lay metal directly on a heat-resistant surface to keep back side of metal cooler	#5
4. Larger perforation with transparency and swelling of entire sheet	Work with 20 gauge or thicker; move flame slowly over surface, allowing the cellular structure to increase in size	#7



3. Torch perforation sample of 24 gauge—perforated total sheet thickness.



4. Torch perforation sample of 18-gauge—mainly surface perforation.



5. Torch perforation sample of 18 gauge—only surface perforation.

Kiln Perforation with Alloy #752

Materials needed:

1. Heat Source—Kiln/Pyrometer
2. Bed—Fiberfrax on wire rack
3. Metal—Nickel silver CDA #752
4. Acid Bath—Nitric or Sparex
5. Poker—steel rod—9" minimum length with ¼" 90° angle on end
6. Spatula
7. Asbestos Gloves

Perforation can be done in a kiln with very controllable results (Fig. 13). The kiln method works best with a pyrometer.

Before heating the kiln, establish supports in the kiln to elevate the metal to the level of the viewing hole on the door so it can be viewed during the process. Be sure to note where this metal and bed assemblage was placed for viewing to expedite replacement.

Fire kiln until it reaches 1960°F. With a long-handled spatula and asbestos gloves, quickly and carefully place metal/bed assemblage in kiln. Let kiln temperature climb again to solidus temperature of this alloy. It should take approximately 15 minutes to allow necessary oxide build-up and perforation. During the heating stages the metal will go through temperature colors of red, orange, yellow, and then bright yellow. When yellow to bright whitish yellow is noticeable, insert the poker through the viewing hole in the door and tap the top surface of the metal to check for its solid or nonsolid state. Do this quickly. Keep retesting every couple of minutes with the poker until it easily penetrates the metal. Once penetration is possible, open the kiln door slightly to observe the swollen state of the sheet of metal. The poker test, visible swelling and an accurate pyrometer reading are the means to judge when perforation has successfully been completed. Unless the pyrometer is tested for its accuracy, begin the poker test at 1860°F to avoid overheating due to possible pyrometer inaccuracy.

One major factor to note concerning kiln heating: there will be no perforation sites visible during the heating process as there is with the torch method, due to the kiln glowing so brightly and to total sheet heating versus localized heating. Those sites only become visible once the acid has been able to attack the oxide layer (see below), since the oxide layer also spans the perforation areas. The major variation with the kiln is that there is no row structure and no high and low variation, but a 3X to 4X even surface swell.

Acid Treatment

A heavy oxide layer must be removed after either the torch or kiln heating process. A standard acid bath of 10 parts water to 1 part acid, using sparex or nitric acid, will eventually remove the oxides, but the process will be slow. A stronger acid bath is more efficient in removing all oxides, including in the cavity areas. There are advantages and disadvantages to total and partial oxide removal. In either case, be sure the acid has sufficient time to attack all top surface oxides, since most perforation sites are hidden by the oxide covering. Therefore, all perforation sites are not exposed until the oxides are removed, especially with the kiln-heated metal.

The advantages of a more diluted acid bath are: First, the acid attack can be easily monitored. Second, it can be halted before all oxides are removed "in" the cavities. This will allow greater visual contrast between the white nickel silver surface and the dark interiors (Figs. 9 and 15) and will emphasize the three-dimensional swell due to the contrast. It also accentuates the edge contour opening to each cavity, which tends to be an irregular, organic shape instead of a perfect circle (Fig. 9).

A third advantage to a more dilute acid bath is in relation to row structuring. The nonperforated rows will exhibit a copper surface on both the front and back of the sheet. The cavities will have a thin copper surface directly next to the nickel alloy. This offers a color factor for designing. The weaker acid bath will allow the copper to remain.

The first and main advantage to a stronger acid bath of 2 parts water to 1 part nitric acid is that it quickly removes all oxides, even in the recesses of cavity and crater walls. Oxide removal in the recesses will emphasize the reflective metallic concave areas (Figs. 4 and 5). A more two-dimensional surface embellishment is the resulting effect.

The stronger acid bath must be closely monitored at all times to control various effects. Another acid effect possible is that the pickle could controllably be permitted to attack the metal, once oxides are removed. The result would be an increase in the size of the perforation (Fig. 4).

Some disadvantages are: First, the stronger acid bath will attack the nonoxide surfaces between rows and cause a degree of etching to the metal. Also, since the thickness of the oxide layer varies in perforation sites and surrounding areas, a second disadvantage occurs when attempting to remove all oxides. Such removal might result in acid attacking too much of the metallic lattice structure, causing areas to become too thin or causing large holes.

To identify the effectiveness of stages of the pickling with stronger or weaker acid bath, rinse the perforated metal with water and then scratch-brush. This will greatly aid in the removal of oxides and identifying the surface needs.

Joining Methods and Surface Finishing

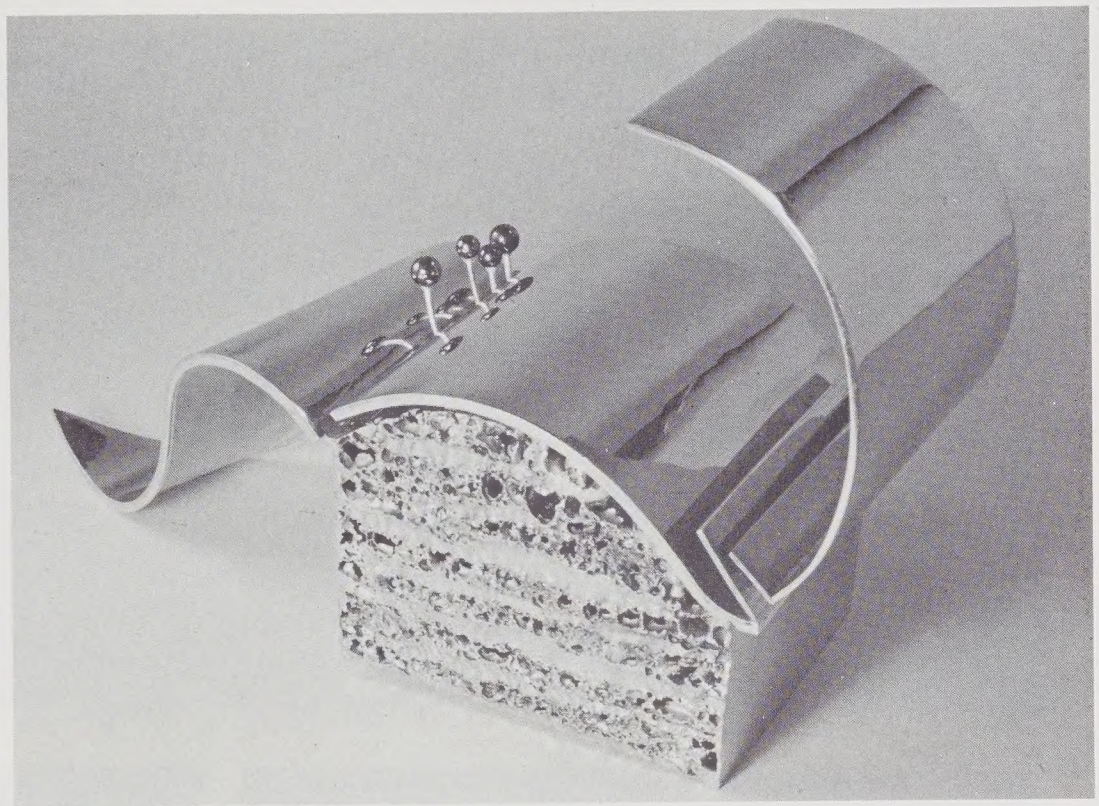
Any cold-joining method can be used with perforation. A very effective use of a bezel wall is exemplified in Fig. 16.

Soldering perforation also presents no major difficulties. However, its delicate lacelike wall structure must be remembered. Therefore, when heating for soldering, treat the perforated areas as delicate thin-and-thick areas to avoid overheating.

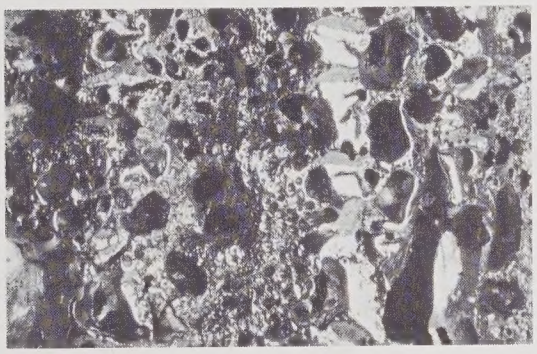
Most types of solder joints can be applied to nickel silver perforation. For a corner joint of two perforated sheets, miter contacting edges. Sweat soldering of perforation would not be recommended.

Scratch-brushing and buffing can be done normally. The perforated structure is quite strong and sound enough to withstand vigorous buffing. Fragile areas would occur only if: (1) the torch remained in an area for too long and overheating resulted, (2) a thin gauge of metal were used and its entire thinness had to be carefully handled, (3) the acid bath were allowed to attack the metal for increased perforation effects. Therefore, depending on the type of perforation, rugged or delicate, the buffing procedure must correlate.

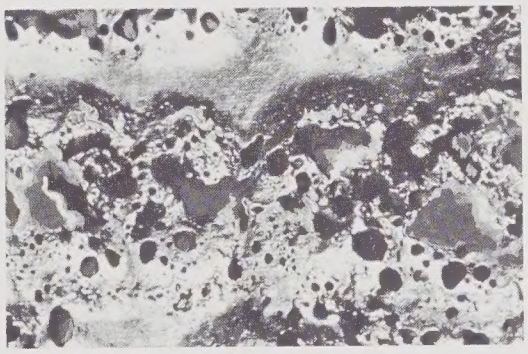
6. Paulette Myers, *Majestic Form*, perforated bracelet.



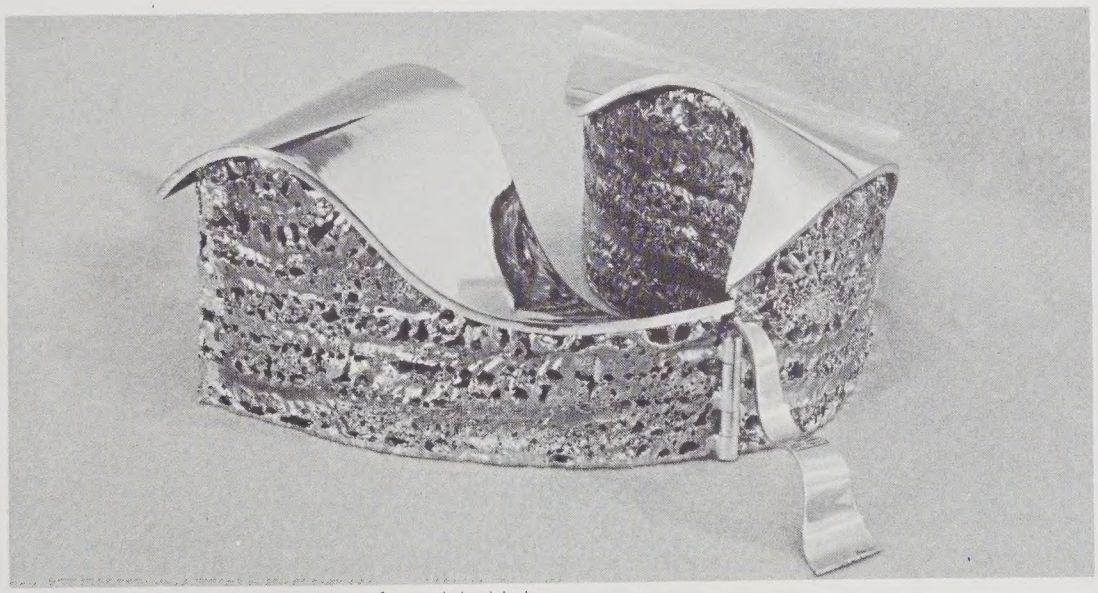
8. Paulette Myers, *Earth, Sea and Sky*, perforated box.



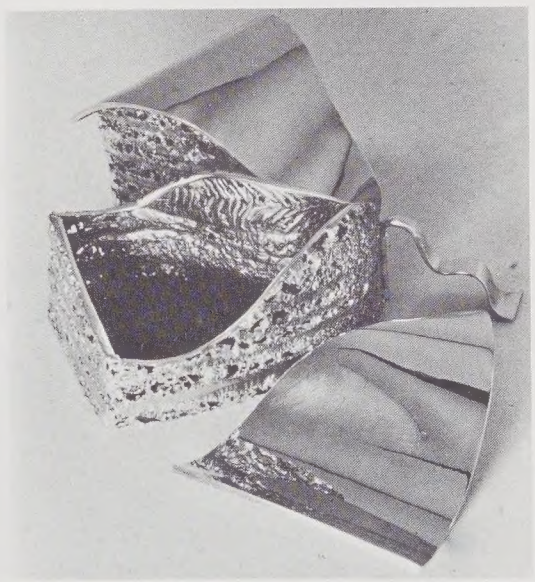
7. Detail of #6.



9. Detail of #8.

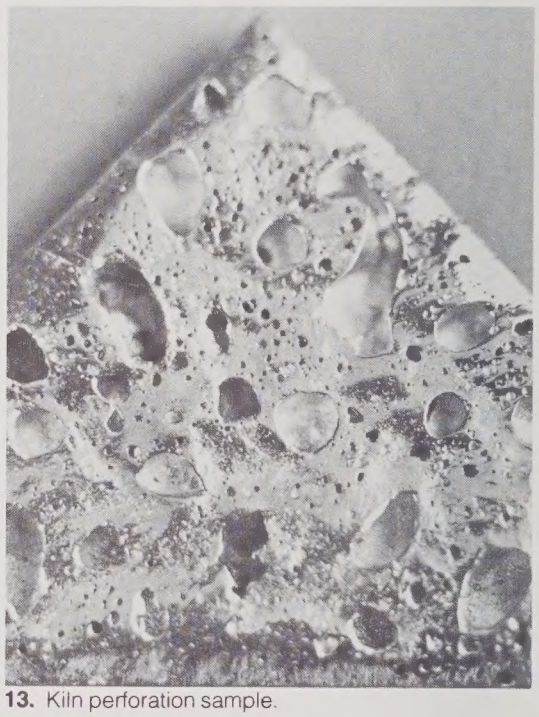


10. Paulette Myers, *Winged Flight*, perforated double box.

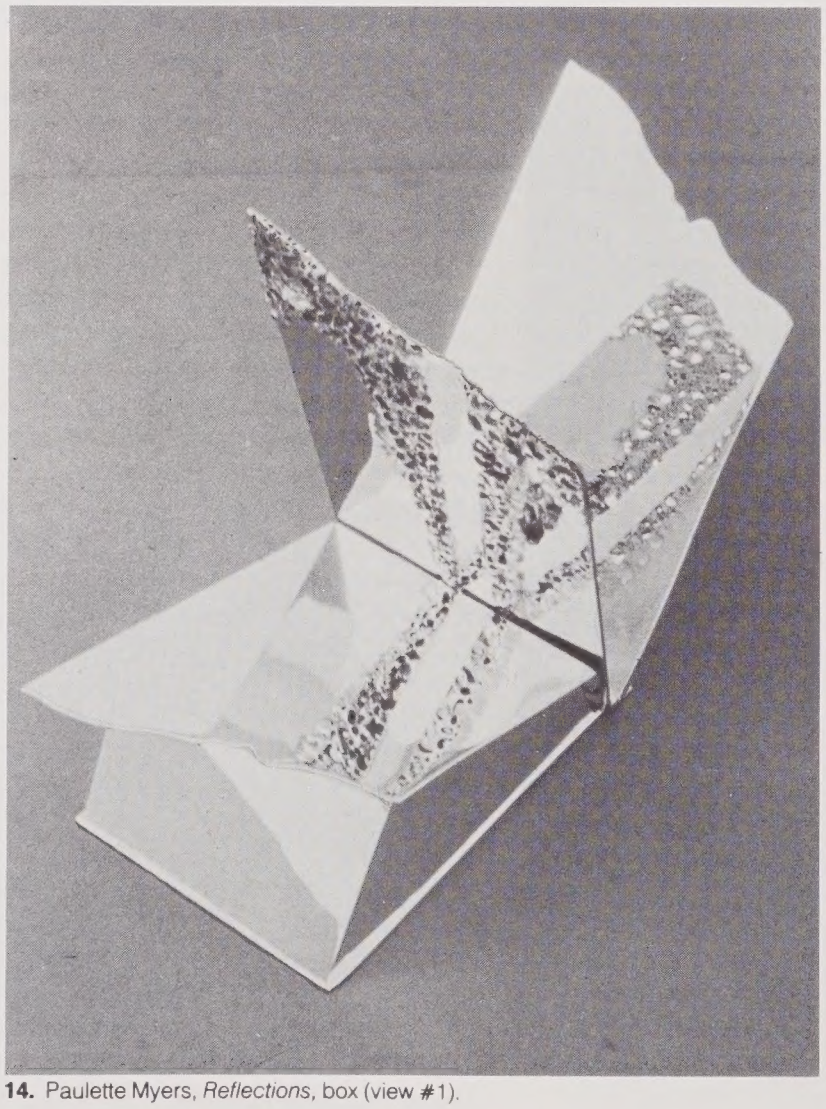


11. Interior view of #10.

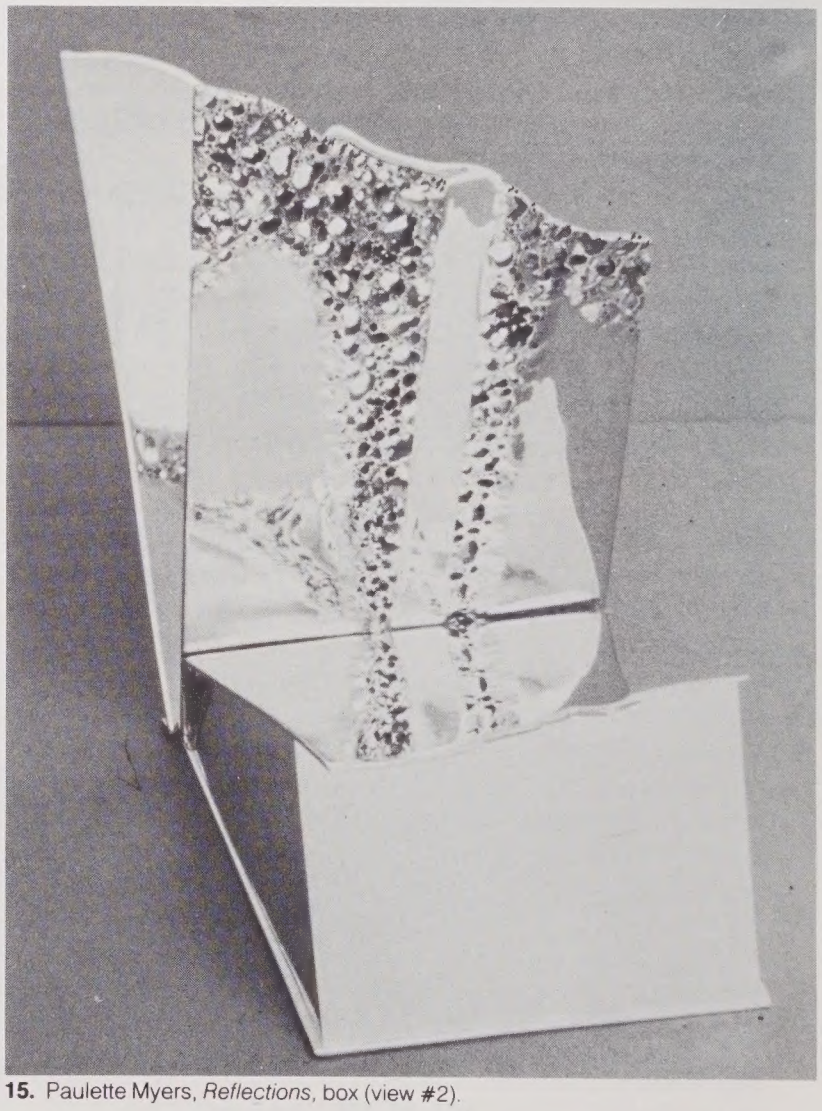
12. Heikki Seppa, *Biphorcated Container.*



13. Kiln perforation sample.

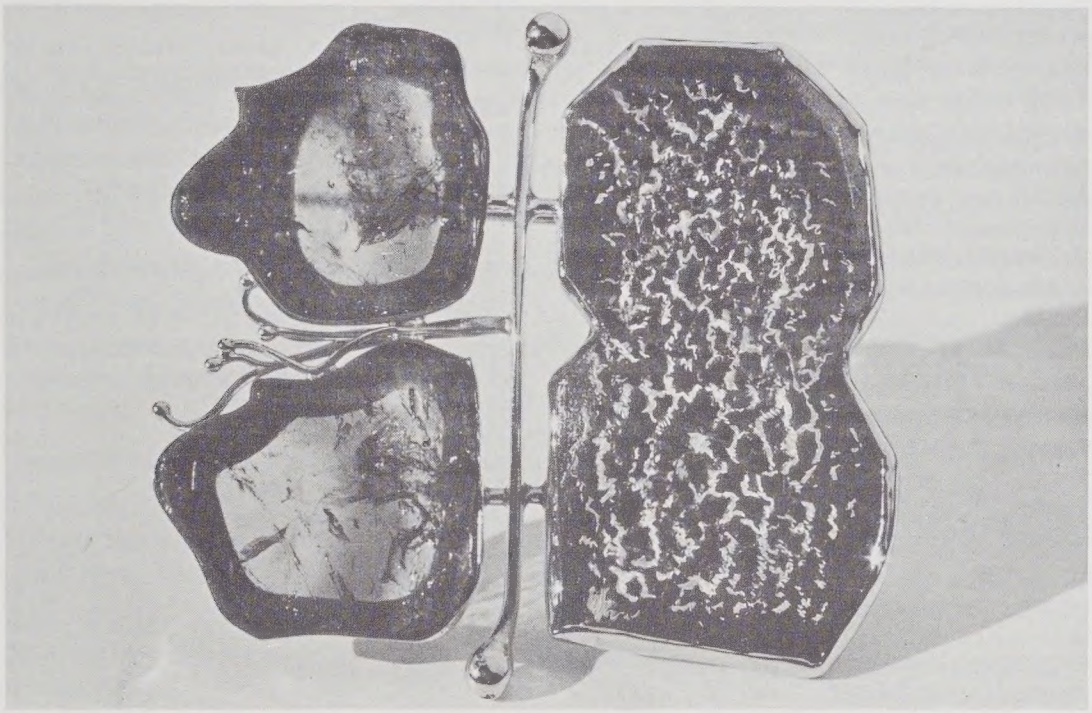


14. Paulette Myers, *Reflections,* box (view #1).

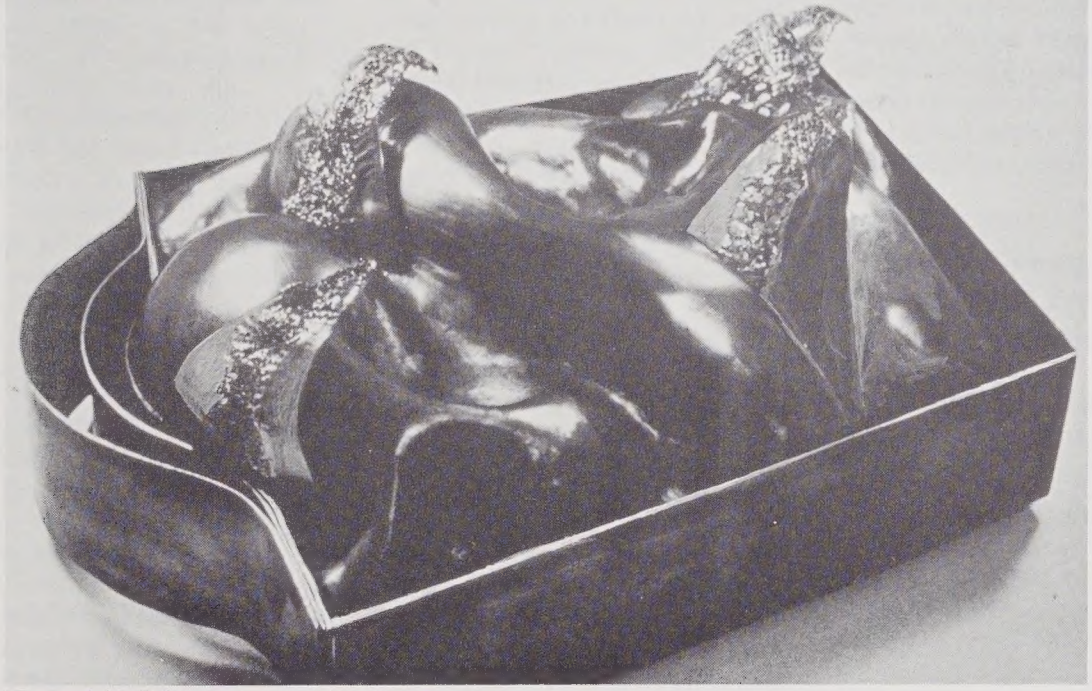


15. Paulette Myers, *Reflections,* box (view #2).

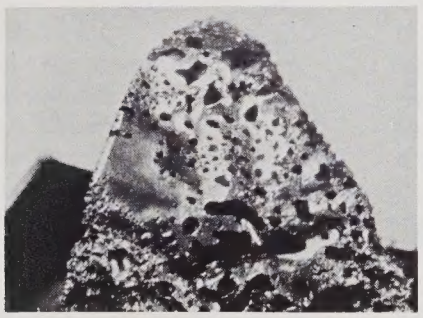
Conclusion



16. Heikki Seppa, *Pin.*



17. Sarah McGuire, *Synthesized Hearth*, with perforation.



18. Detail of #17.

Nickel silver perforation has developed greatly since its origin in 1972. Technically, it now offers the metalsmith a new and unique surface embellishment. Its artistic application is quite extensive when considering the external variables cited in the process. At present, the differences inherent in the alloy, with the variance of residual manganese content, can be dealt with in a positive way.

For a consistant and lower manganese count, alloy #752 which originates from the Bristol Brass Corporation is recommended. Those known dealers distributing this particular foundry's #752 are the Conklin Company, the Dixon Company, Hauser and Miller, and Rockhound Supplies, all listed in the "Sources of Supplies" section. The degree and significance of perforating differences with other foundries' #752 alloy, due to manganese count, is yet to be established.

There are many other nickel silver alloys and nickel alloys. How will they perform? These findings should prove quite valuable in different perforation and color effects.

Artistic application is quite extensive. At present, perforation ranges from delicate to massive formation. It can be a light-transmitting three-dimensional lattice structure or a more two-dimensional cratered surface. It can offer varied degrees of thickness increase. Recent tests have indicated that the alloy can be formed first and then perforated without direct support and without gravity interference. This is due to the two-phase preferential melt. This fact alone offers extensive application.

It has been quite exciting to work with and develop this new technique of perforation. But future research with other nickel alloys and more work with #752 may prove promising, thereby possibly expanding the horizons for perforation.

Source of Supplies

Nickel Silver Alloy #752

Bristol Brass Corporation
Bristol, CT
(foundry—because the minimum order here is high, it is advisable to consult them for a dealer in your area)

T.E. Conklin Brass and Copper Co., Inc.
324 West 23rd St.
New York, NY 10011

William Dixon Company
750 Washington Ave.
Carlstadt, NJ 07072
(at present they carry alloy 752 N/S)

Hauser and Miller Co.
4011 Forest Park Blvd.
St. Louis, MO 63108
(Dixon Co. 752 N/S)

Rockhound Supplies of St. Louis
5219 Gravois
St. Louis, MO 63116
(Dixon Co. 752 N/S)

Fiberfrax

Refractories Suppliers
(Consult your local telephone directory)

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Mr. Robert Reynolds, Research & Technology, Xerox Corporation, Rochester, New York

Mr. Heikki Seppa, Professor of Metalsmithing, Washington University, St. Louis, Missouri

Mr. John Sharp, Metallurgist, Industrial Testing Laboratories, St. Louis, Missouri

Mr. Al Siegal, President, Industrial Testing Laboratories, St. Louis, Missouri

In particular, I want to recognize my consulting metallurgist, Mr. John Sharp, whose persistence and curiosity enabled us to explain and develop a consistency for perforation.

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Commentary: Gold and Silver Prices

The dramatic rise and fluctuation in the price of precious metals concerns retailer, refiner and independent metalsmith alike. Goldsmiths Journal approached representatives from each sector with the question: how have these price fluctuations affected you? Below are the answers and assessments.

A Silver Lining to High Precious Metal Prices

by Joseph Hall

As precious metal prices rise and tend to stabilize at ever higher levels, pressure increases on students, instructors and craft professionals to reevaluate designs and instructional projects in terms of the price squeeze. The reevaluation may have a silver lining.

In the educational system, students are often limited in the amount of direct experience they can have with precious metals at the early stages of their education. An instructor may suggest alternative metals: brass, copper-nickel alloys, aluminum, mild steel or others, that will closely simulate the experience of working with precious metals. Also, alternative techniques which can decrease the amount of costly metals in metalry (jewelry plus metalsmithing = metalry) objects can be pointed to: shell forms, electroforms and plating. (A side effect might be to make metalry more in tune with the political and ecological realities of today — most precious metals do not come from either politically or ecologically benign situations.) A greater problem occurs in apprentice or trade-school programs, where a close simulation is not good enough; as long as most commercial metalry is gold, and to a lesser extent silver, the student must work with these metals, if at first for no other reason than to overcome their trepidation of working with very valuable materials.

Sterling Silver Design Competition

Another problem is the impact of high silver prices on the Sterling Silver Design Competition. The amount of reimbursement for metal is wholly inadequate with the current high metal prices, but in fairness to the Sterling Silversmiths Guild, a substantial increase cannot be called for either. What is needed is a change in the competition rules, either to accept silver-plated articles, or to first judge by drawings and models (both should be accepted because some students are more adept at one than the other). The Guild should then supply the sterling or a fixed percentage of its cost (perhaps 80%). If the latter change is accepted, the net cash outlay would be less than under the present rules, the number of entries may increase, but more importantly, there would be a greater diversity of design ideas in the entries.

Search for Alternatives

What is called for then is a search for alternate materials, techniques and values that suit the "correctly defined" objectives in our work. The aesthetic, physical and socio-political indicies have to be weighed, and a rejection of old paradigms, if called for, must occur. While aesthetic and political judgements have to be made by each of us independently, the materials question can be handled collectively and objectively. Unfortunately, most metalworkers are not equipped or inclined to undertake the primary or secondary research needed to comprehensively examine the alternative materials. Fortunately, SNAG as an organization, has the cumulative talent and energy to do such research. I suggest a catalog of materials, clearly defined by objective parameters, both familiar and unfamiliar. The parameters might include: color, as defined by reflectance curves; melting points; malleability, in terms of percent elongation and yield strength; allergenic and safety properties; historical uses in metalry terms; cultural connotations; suppliers; aesthetic and technical references and a comparison list of similar materials. While some of the data is readily available, much of it may require tests by SNAG. Techniques that are used in industry on less familiar materials may spin-off as useful techniques for precious metalwork. All things considered, this reevaluation of our designs and ideas, forced on us by high precious metal prices, may lead to a more succinct and humane statement of our design intentions. The art is not the metal itself but what is done with it: opulence and habit giving way to judiciousness and thoughtfulness.

Effects of Fluctuating and Higher Metal Prices on Retail Sales in 2 Galleries

Concepts Gallery

by Douglas Steakley

During the past months several factors have affected our retail sales at Concepts. Gold and silver have both risen dramatically in price. Gold has received much more publicity than at any time in the past, and it has fluctuated rapidly — going up and down at the rate of more than $50 an ounce in a single day. All of these events are related, but they have different effects on the way consumers purchase jewelry.

Rising Prices

When gold began rising in price, working its way through the $400 an ounce range, people became very excited about buying gold jewelry. November, which is usually not a very good month for us, became a great month in 1979. Gold was receiving small mentions on the front pages of many newspapers and people were developing a consciousness about the value of gold. It became desirable to wear gold jewelry and customers looked at it as an investment. We could say things such as you could buy this nice pair of gold earrings or a silk blouse, but the earrings will last a lifetime and the blouse will wear out.

As gold approached the $500 an ounce mark and began receiving more publicity in the papers, our volume of business slowed down. This, plus the great increase in the price of silver, slowed down our Christmas business substantially. For instance, November was almost the same in volume as December, and normally December is twice the November sales. The increased publicity made people think more and more that gold jewelry was expensive, and they forgot about the investment aspect. People would often walk in and make comments about how jewelry must be sky high in price. And they were right.

Then in January gold prices really cut loose. In a period of two weeks we had calls and letters from about 15 persons who consign with us asking us to increase the price of their jewelry, or asking our advice. We had to develop a sliding scale for price changes that would accommodate gold spot price from $400 an ounce to $1000 an ounce. I don't think anybody was prepared for the fantastic leaps that gold took during the month of January. Needless to say, this hurt our business a lot. Nobody was thinking of buying jewelry at all. On the contrary, across the street from us was a business that bought and sold gold and he had lines in front of his shop an hour before he opened.

Everybody was scratching through old jewelry boxes looking for old gold and silver to sell. At the time we thought January was a terrible month, but when it was over and we added everything up, we had increased our business about 40% over last year. Due to increased prices we could sell about half as much jewelry and still make more money.

Fluctuating Prices

Fluctuating prices are the hardest on a jewelry store's business. The public develops a wait-and-see attitude. Fluctuating prices create an air of confusion that affects everyone, including the salesperson. I think salespeople develop a lack of enthusiasm during fluctuating and rising prices because in the back of their mind is the thought that it may be better not to sell an item since it may be worth much more next week. Why sell a ring for $600 when it may be worth $800 in a week. And when prices fluctuate, people don't want to purchase items because they think the price may be less if they just wait a few days.

High Prices

High prices is an abstract concept, relative to prices in the past and to prices that may exist in the future. High prices for gold and silver are here to stay but they are only high for those of us who remember when silver was $1.85 an ounce and gold was $35 an ounce. For the jeweler beginning today, prices are not "high," but are just what they are. I remember silver being called an expensive material when it was $1.85 an ounce.

High prices of raw materials do not seem to affect or deter sales as much as fluctuating or rising prices. During the month of February, as I write this, gold is about $700 an ounce. Certainly high in price compared to a year or even two months ago, but, because it is not rising and not receiving a lot of publicity, the public pays much less attention to it. People look at a ring that now costs $325 that was $185 a year ago, and shrug their shoulders, feeling the price is not too bad. We live in an economy that has become hardened or accustomed to high prices and inflation and we forget very quickly.

However, higher prices of raw materials will have several effects on jewelery makers. I think that the jewelry profession is going to receive a new, elevated status in our society and that it is going to become more lucrative. Assuming that people are still going to desire and purchase gold jewelry, I think the average customer is going to become much more careful about how they spend their money. Now that a set of wedding bands can easily cost $800 - $1000, the consumer is going to spend more time and give more consideration to his purchases. This can only benefit the individual producing jeweler who is a good designer and takes pride in craftsmanship. Labor costs are not going to be such a large percentage of the final price of a retail object and this will enable a person to spend more time and be paid well for it. On the other hand, manufacturers, who in the past have cut the retail price by reducing labor costs, are going to be forced to sell their goods at higher prices, due to the increased cost of gold. And it is going to be more difficult for manufacturers to stockpile a large inventory. These factors, plus an increased awareness of fine craftsmanship that is already sweeping the country, should be very beneficial for the local goldsmith.

Silver Prices

Silver prices have risen even more than gold prices, but silver has not received the widespread publicity. However, due to the increase in silver prices, the lower end of retail items — the gift items — have been practically eliminated from our shop. Bracelets that were $26.50 a year ago are now about $100. This had an impact on our Christmas business, since many people like to spend $15 to $30 on a gift and we found that we had virtually nothing in that price range. I think silver is going to become a much more respected and widely used metal. I hope it will become more popular and more fashionable. But the question we are currently faced with is whether we should look for a substitute for the lower priced items, or change our "image" into that of a higher priced shop. Changing our image requires a change in clientele which can be a dangerous maneuver.

Conclusions

The rapidly changing and ultimate increases in the prices of precious metals have presented us with confusion and problems. But as a practicing goldsmith and shopowner I am optimistic about the future. People are still buying gold jewelry as readily as they ever have and the increased prices and increased dollar volume will help our business in many ways. I think there will still be a demand for lower priced jewelry and I see many possibilities for making well designed "costume" jewelry out of other metals such as gold inlay in silver. Design will play a larger role in jewelry of all price ranges and some of the manufacturing companies will probably fall by the wayside. The jewelry profession, at least for the practicing goldsmith, will reach a new plateau and be more respected.

McLean & Co., Goldsmiths

by George McLean

I have discussed with a number of associates the impact of increasing and constantly fluctuating prices of gold and silver on a retail business. Most of us own businesses employ a small staff and derive our livelihood from the production and sale of our work. It has affected all of us rather severely financially by decreased sales and increased cost of materials. Since it has directly affected business and individual income, we must reevaluate our own situation, goals and potential to succeed in what appears to be a new economic climate. Several are seriously considering selling their businesses. Most are in agreement that new approaches must be examined and changes made in order to survive as a metalsmith today and to prosper again in the future.

Customer Reaction

The initial reaction to the soaring prices was a bit of panic for both client and metalsmith. Because of news coverage most customers understood when we were forced to increase our prices so dramatically over such a short period time. There are many cases in which the cost of the gold alone in an item today exceeds the retail price of that same item in September. Several customers remarked that we must be getting rich with the price of gold skyrocketing. True, the value of our inventory increased, but sales declined and the overhead remained the same — if we were fortunate. In order to replace stock when it sold, existing prices were raised to cover new gold costs. At our shop we raised only gold content prices, not labor. This increased cost caused a decline in sales. Many customers were not prepared to go beyond previous limits of affordability. Other customers looked and went elsewhere, deciding to accept

less in quality of design and craftsmanship. There was less carefree buying, clients only purchased pieces of real importance to them. Many have just decided to wait indefinitely.

I believe this period of panic and uncertainty is starting to ease, but we will not see a return to the same customer attitudes and patterns about purchasing jewelry. For many of us it will be much like starting business anew.

Business Reevaluation

Most of us feel that we can hold on while we reorganize and find a new direction. What all this means is a new focus aimed at several things. It will involve an appraisal of one's clients, what their economic stature and desires are, an evaluation of inventory, eliminating that which does not move, a redesigning of work to reduce material cost and as much production cost as possible, an introduction of less expensive materials and items that previously were considered unimportant but may now better fit old and new clients' needs, a creative approach to advertising and promotion with the aim of zeroing in on a specific jewelry buying clientele. There will be a genuine need to educate the clientele about custom jewelry. Even though this is a critical period for survival, there still remains a market for fine custom jewelry.

Silver and Gold at the Winter Market

by Judith Love Schwab

Buyers were cautious, apprehensive, passed over people, seemed rushed, and were much more skeptical than necessary. That's what some of the jewelers at the Winter Market in Baltimore had to say about the wholesaling situation. The show ran from February 14 - 17 and the metal prices on the 15th, according to the Washington Star, were $682 an ounce for gold and $36 for silver.

The jewelers had a variety of reasons for the buyers' response. With gold and silver prices fluctuating, the time lag between the placement of an order and its delivery can make pricing very risky. A certain amount of price rise might be absorbed by the craftsman but a substantial rise would certainly be passed on to the buyer, while a drop would tend to not affect the original price of the items. Another reason offered was the rise in thefts and the subsequent rise in insurance rates for the shop and gallery owners. And some people felt that the buyers simply didn't have faith in the public to continue buying jewelry now that the prices have risen. Most of the jewelers I talked with expressed a more optimistic attitude toward the buying public.

While the metal prices affected the buyers it also affected the jewelers and the results were translated into their work. Some made an effort to lighten their designs, some produced new lines using more silver than gold, combining base and precious metals or accenting silver with small amounts of gold. In addition to design changes, more attention is now brought to the amount of silver used and in what forms. While gold has been expensive enough to inspire parsimonious methods of handling, that is, saving even the smallest scraps and reusing any salvageable parts, silver handling has been much more relaxed. Now it is weighed out just as carefully as gold and the waste produced by a design is considered in the pricing of the piece.

Two jewelers working together in both silver and gold were Suzanne Nill and Joseph Wood. Since they sell only through shows, they came prepared to offer the buyers a safe item: lots of silver earrings. The wholesale response was cautious but the retail market was cooperative. The public was buying their gold rings containing unusually shaped faceted stones and their silver earrings.

Michel Plumail works in copper, brass and a combination of copper, brass and silver. Because of the low cost of his materials he could offer a low-priced item to the retail market and he seemed to be doing well with the less expensive items in his line. He had been planning to produce more silver pieces, but the response to his copper and brass jewelry has been good and he plans to continue it.

Carol Shannon Hsu has been using a combination of silver and brass and silver and gold in her pieces for some time now. The silver and brass combinations were the best sellers. While she noticed the reticence of buyers, she did comment on the high quality of the distributors represented by the buyers and the opportunity to make good professional contacts. The high standard of work sold at the Winter Market seems to be attracting attention from major retailers and gallery owners.

Amitai Kav produces only gold jewelry and was a newcomer to the Market this year. He does have a line of small gold pendants, but most of his work is large and complex, representing a sizeable investment in both materials and time. The prices are so high in fact that they are well above the troublesome middle ground, and it was his view that a few hundred dollars' increase just doesn't matter to the person who is willing to pay thousands.

Linda Van der Linde and Cristina Cuccoli produced the jewelry most of the jewelers were talking about. While everyone else was worrying over pennyweights and London Market closings, Van der Linde and Cuccoli were selling jewelry that fit into the silver jewelry price range ($10 to $36) but were unconcerned with sterling prices. They produce a line of porcelain jewelry that seemed to be very popular with the public and also with the buyers, at least according to the scuttlebutt.

The consensus seemed to be that the wholesale market was a bit off, not gone, but certainly not better than last year. Retail sales were also off, but people were still buying. From my observations, they were buying the least expensive items — copper and brass, the most expensive — gold and alternatives — porcelain. Enamelist Rosanne Risner found that people expressed a desire for the unique when choosing to buy an enamel over a gold piece. And Christopher Walkey, who works in both silver and gold, thinks that people will adjust to the higher prices. In fact, the price of silver pieces seems to provide a bigger shock to the public than gold and this may stimulate a new appreciation for fine, handcrafted silver work. Sales may have been down but the jewelers were optimistic.

The Impact of High Prices on Substitutions for Precious Metals

by Lionel E. Simmons

Within recent weeks precious metal prices have climbed spectacularly to all-time highs. What will be the effect of these high prices on the use of precious metals? Will it stimulate a search to find substitutes? Relative to other materials, precious metals have always been the highest in cost, therefore, the quest for suitable replacements is an on-going research project. Precious metals should only be employed where justified for technical and economic reasons. Stainless steel has substantially replaced silver in silverware, cupro-nickel alloys in silver

coinage. Titanium and tantalum have substituted for platinum in many chemical usages. Ceramics have been exchanged for platinum in some high-temperature applications. Such techniques as plating, cladding and alloying have diluted the precious metals so a little goes a long way. In general it is easier to substitute metals of the platinum group for one another than to use alternative materials. For example iridium ($410.00 per oz.), ruthenium ($36.00 per oz.) substitute readily for each other as hardeners in platinum-based alloys. Palladium and platinum are interchangeable to some extent in dental alloys. Indeed, in the past two years there has been a profusion of nonprecious alloys offered on the market as a result of the higher prices of precious metals.

Alternative materials in electrical use include tungsten, nickel, silver (for gold and palladium), gold (for platinum) and silicon carbide. Several types of catalysts may take the place of platinum group metals in some chemical synthetics, but with penalties in efficiency and usually in operating and capital costs. Examples are catalysts containing the transition metals such as rare earth elements, nickel, molybdenum, tungsten, chromium, cobalt, vanadium and silver. The substitution of rhenium for part of the platinum in petroleum — reforming catalysts, in recent years, is one instance where significant improvements in performance and durability resulted from substitution.

Years ago Western Electric once threatened its supplier, "Don't raise the price of palladium too much or we'll substitute gold" (then controlled at $35 per ounce). Gold was not the answer — electronic switching is. Electronic switching uses precious metals too, but in more minute amounts.

As research lessens the need for precious metals in some areas, new inventions and devices come to light that increase their need. This is just as true in other materials, as it is in precious metals. Look how plastics have replaced iron and steel in automobiles. Fiberglass optics is replacing copper wire.

No manufacturer could have spent more time and money than General Motors seeking a nonprecious automotive converter catalyst. In the end they had to surrender to the supremacy of precious metals to meet the E.P.A. time schedule. It is anticipated that by the year 2000 engineering designs and new fuels could eliminate the need for a precious metal converter.

The telephone industry is the major user of palladium for electrical purposes, employing it in electro-mechanical switching equipment. In 1974, Western Electric Company, which manufacturers most U. S. switching equipment, replaced palladium contacts with contacts of a 60 percent palladium, 40 percent silver alloy. This has substantially reduced demand for palladium. As new telephone exchanges now incorporate solid-state switching devices, the probable forecast for palladium usage is even lower.

Xerography, an electrostatic duplicating process, has reduced the use of silver-coated photographic paper in office copy work. Magnetic video tape is replacing silver coated film and may be the home movie format of the future. Aluminum is a substitute, though inferior, for silver in mirrors and reflectors. Electronic switching could replace mechanical switching containing silver contacts. The high price of gold has prompted many jewelry manufacturers to substitute nongold alloys, mostly for the school class ring markets — very definitely an inferior product as no metal or alloy possesses the desirable characteristic and properties of gold.

No metal or alloy can withstand tortuous hours of high temperatures in corrosive atmostpheres as platinum can. The first mass-produced diodes and transistors contained about $30 per pound, salvage value, precious metals. Now they are produced with no precious metal content at all. Their reliability is only fair, and they are used in noncritical consumer products such as video games and inexpensive calculators. The more sophisticated computors and missile systems still require components with precious metals.

At present, only precious metals can give these components the reliability that is necessary. No metals will ever, could ever, replace the aesthetic beauty of gold and silver in the arts and jewelry. Though higher prices will make jewelry more costly, they will only increase its desirability. The search will continue for more efficient and economical materials to build our tools, toys and necessities. No current use for precious metals will be discontinued because of high prices alone, unless an equal or better substitute is found. Recent high prices have not spurred any greater research for substitutes; the search is there all the time whether the price be high or low — it's always too high.

Joseph Hall is a graduate student working towards his MFA at the University of Washington in Seattle, where he is also a teaching assistant. He is currently giving workshops around the country.

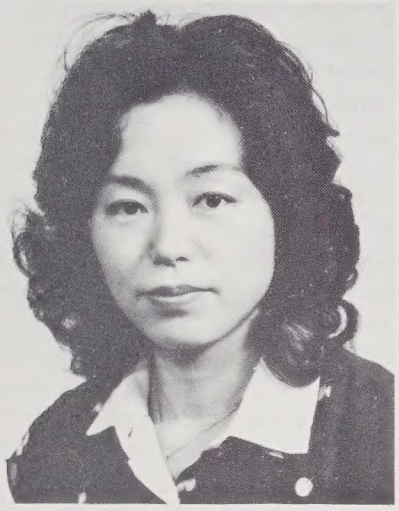
Douglas Steakley set up Concepts Gallery in Carmel, CA a number of years ago to act as a fine metalwork retail outlet and studio.

George McLean is an independent goldsmith, whose gallery and studio setup has been successful for over 15 years.

Judy Schwab is a jeweler and an editorial assistant at Virginia Tech in Blacksburg, VA.

Lionel E. Simmons is Board Chairman and Technical Consultant to the Simmons Refining Company, which he founded in 1940.

Autobiography
by Mieko Matsue



Mieko Matsue is a member of the Japan Jewelry Association and the Japan Artcraft Designer's Association. She has exhibited at the All-Japan Jewelry Exhibition, the International Craft Exhibition in Munich, West Germany and the Tokyo International Arts Exhibition. Her work is in the collection of the Pforzheim Museum and she received the Memorial Prize at the Modern Artcraft SHIN SEI KAI competition. Mieko Matsue lives in Yokohama, Japan.

In college at Japan Women's University I studied architecture, with the intention of entering the interior and furniture design profession. However, I began to be drawn more and more to smaller three-dimensional objects — sculpture, ceramics, glass and particularly metalwork. So, I did not enter the architectural profession but chose instead to follow my natural inclination.

My desire became reality when I met the man who was to be my master, Yasuhiko Hishida, a great Japanese jewelry designer. Soon after beginning my studies with him, I recognized that metalworking was my calling, that the process of hammering, casting, spinning and melting opened up possibilities that I had never before experienced.

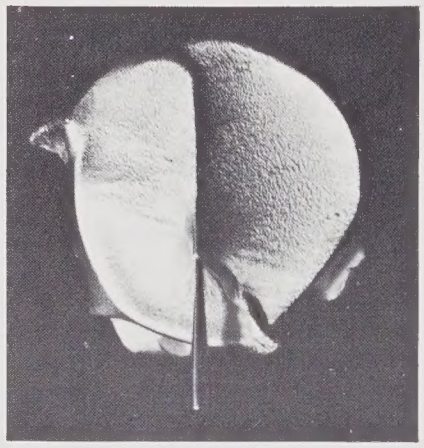
The melting process fascinated me: how to approach the flame with a delicate material and come away with the intended result was a challenge. I began to experiment with partial melts to obtain forged surfaces or melting and bending with snips to create flowing. I was dazzled. I tried using a weak flame and soldering or melting ground metal filings to obtain small masses of metal on the surface of a piece.

I perceived that the smaller the object the more deeply it is felt by the viewer. So my pieces began to reflect human emotions — loneliness, love, depression and to take on human attributes — heart, pony tail, dimple. I call this work "Familiar Sculpture."

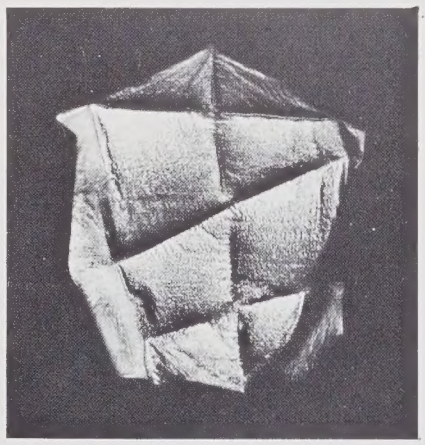
I try to find in each creative process an awakening of human consciousness. Melting, for instance, that momentary meeting of flame, temperature and material which results in a shape or space, is similar to the stoicism of Japanese chivalry (or military science), the so-called way of the Samurai.

Recently my study of Japanese chivalry has led me to Kendo (Japanese fencing), where I have found the melting process similar to the fight: lunge and retreat, the creation of negative space through a foreceful action. The space created is never the same and it inspires me with its smile, its aloofness, or its embrace.

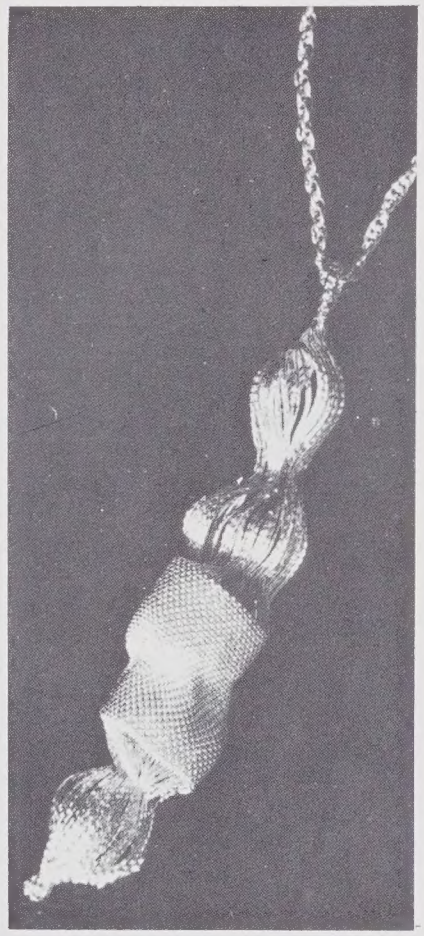
I continue in my work to strive for maximum spatial configurations from melting metal plates and combining them with mesh.



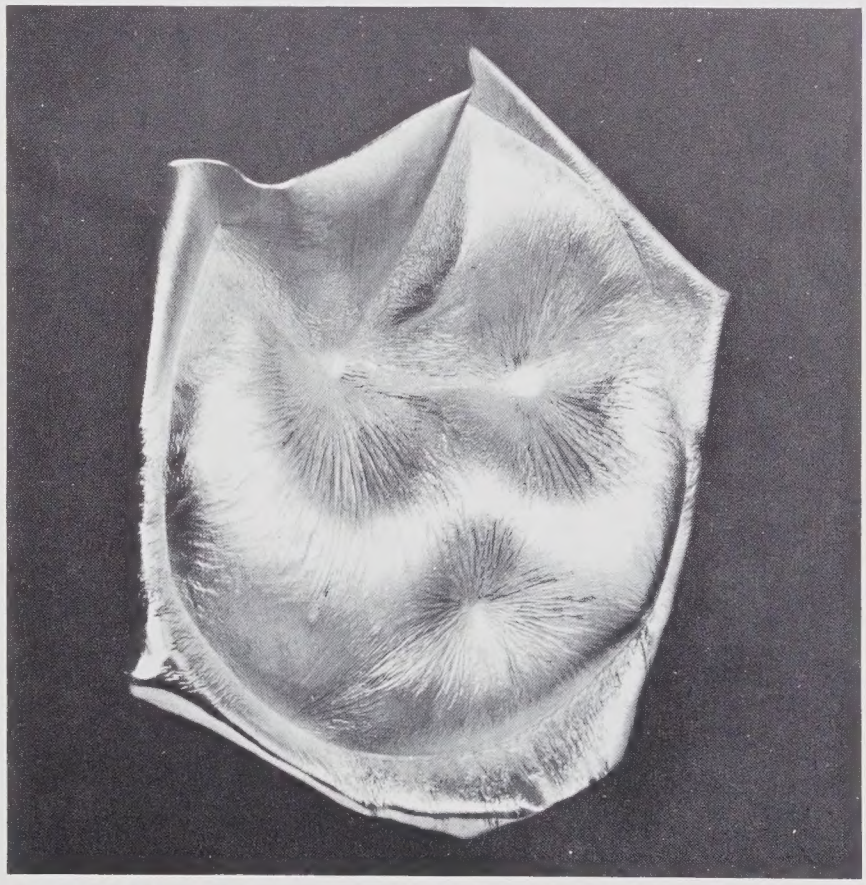
Locus of Heart brooch. Silver. 1¾"



Wither brooch. Silver 2¾"x2½"



Pony Tail pendant. Copper mesh. 2½" long



Dimple brooch. Silver. About 2¼"

Conversation with Amitai Kav

by Paula Winoker

Paula Winoker: Why did you come to the United States?
Amitai Kav: I was interested in meeting artists and jewelers from this country, in seeing their work. I was curious to see other schools, the way they teach their students and to see the students' work. I wanted to share my knowledge and to learn from others.
PW: What is your background?
AK: I was born in Israel 38 years ago. I studied painting for two years and dance for four. I started making jewelry 11 years ago and started teaching 7 years ago in Bezelel Academy of Arts and Design in Jerusalem. I came here as part of an exchange program with the Tyler School of Art in Philadelphia. This semester I am teaching at Parsons School of Design in New York City.
PW: Geographically, this country is very different from Israel. Has this, or the work you've seen here, influenced you in any way?
AK: If you're asking me if the country, Israel, has influenced my work, I would say yes, because I was raised in Israel. What kind of person you are depends upon where you grew up: the people, the country, the climate, the language. I came here as an adult, so the influence will be more intellectual. Now I am too close to it, so I can't tell you exactly what will be my influences.

PW: Why did you become a jeweler and not a painter?
AK: As I told you, I was a painter and I was also a dancer. I have always been creative. I have drawn since I can remember, since kindergarten. I used to decorate my classrooms at school and illustrate the magazine of the Kibbutz where I was born. It was in army service that I first encountered the jewelry media — I designed the symbol of the tanks' navigator units — but it was not until six years later that I really began making jewelry.

After the service, I studied painting for two years and dancing for four years. I then met a woman in Israel who had developed a new system of dancing — Movement Notations — which is intellectual, sophisticated dancing. During that time I was looking for some kind of work to support myself so that I could dance with the group during the day. I started making models for architects. I worked with many materials: cardboard, metal, plastic, fiberglass. This work required skill in crafts. I think some of that pushed me to jewelry, which I thought would be better for me. But I never graduated from any formal school — I have no diplomas, but I keep studying.

When I decided to make jewelry I went to a jeweler's tool shop. The man there was very helpful. I spent a couple of hours buying tools on his recommendations, asking questions and writing down all the information that I could get. I must admit it was very hard in the beginning, but at the same time very exciting. I was burning the metal when I tried to solder. It takes time to learn (as a teacher I try to keep this excitement within beginners, even if sometimes they fail, and to convince them that learning takes time and some do fail).

From the beginning I decided that I must sell my pieces. I didn't think about art at that time. I used to go from shop to shop all over Tel Aviv trying to sell work. I found one gallery which was ready to take pieces. There was also a Persian jeweler who showed me many traditional techniques. Then I became more interested in design. So I started to look in books and everywhere for new ideas.
PW: Although you're basically self-taught in jewelry, you have a fine arts background which gives you everything you need except technique. Do you feel that in this country technique is emphasized tremendously?
AK: There is nothing wrong with technique. It's a very important part of jewelrymaking. You must learn technique either in school or in any other way. There is no doubt about that. But as an artist and as a teacher, I think that at the same time you experiment with techniques you can teach yourself (and encourage students to do the same) to try different ways of designing problems. I think it's easier to teach technique than to teach design. I try to emphasize in my teaching ways to solve design problems through technical problems and technical problems through design problems. To design you need some mental equipment, the same as you need some knowledge and physical equipment to do the technique.

Some people constantly repeat designs because they think that these express their personality. They are ready to learn new techniques but they are not ready to try new design exercises. Being self-taught, I've learned many things from people, many things from books, but there were many I had to solve by myself, both technical and conceptual problems. That brought me to think that what is important is the combination of these factors. I know that some people think that the benefit of living in the 20th century is technique, but I think that much more than that, our biggest benefit in the 20th century is the artistic freedom. We are lucky that nobody's forcing us to make things in certain ways. You can choose any kind of style from any period in history and take elements for your work. You can even try to mix styles.
PW: Do you feel that you get something positive back from your students that you can use in your own work?
AK: The return is not only from the students but also from the situation. You have a chance to talk with people who are dealing with the same materials and you learn new ways of developing ideas, analysing problems and most importantly of asking questions.
PW: Would you be happier to say, "I don't need to teach. I can just stay in my studio and do my work and sell it?"
AK: First, I like to teach, teaching is a kind of communication, but I think I can work without teaching.
PW: From your experience as a teacher here in the United States, are there differences between your school in Israel and here?
AK: It would be unfair to generalize from my experience to all U. S. schools. But from teaching two semesters at Tyler and from meeting with other colleagues, I can say that there are some differences.

In Bezalel, every department concentrates on its profession. Students who apply to the jewelry department, for example, can concentrate for four years in jewelry in all its aspects. This allows us to make a program which grows gradually with the student. Once a year in the summer the faculty meets to prepare the program for the coming year, and during the academic year we have faculty

meetings at least once a month to check on the program.

PW: As regards your own work, I noticed that in a lot of your pieces you're very interested in fastening mechanisms, it seems to be the focal point. How did you get involved in that?

AK: Looking back, I started with very simple geometric shapes, especially the human body, which I found in anatomy books (my father was a biology instructor so I had a chance to look at anatomy books). At that time my jewelry was very large — sculptural. When I started to teach, I found that I had to explain things and to answer many questions for the students and therefore for myself. So, after making big sculptural jewelry, which were sometimes unwearable, for a long time, I began searching for a more functional size, while keeping my design elements. The idea to combine the technique with the function and the shapes made me analyze the elements very carefully. I asked myself: what are the mechanisms that make the jewelry wear comfortably on the human body? I found that those mechanisms — the hinges, links, springs, catches — are very important. Why could they not also be tools to play with. And that brought me to design new mechanisms to be the focal point of the piece. My last exhibition was based on that idea.

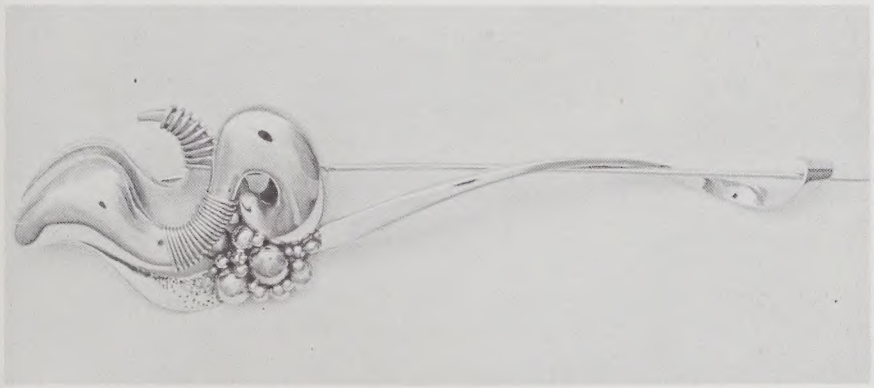
PW: One of the things that also interests me about your work is that, as you say, it's very wearable. It seems to relate to the body more than a lot of art jewelry, although your pieces retain a sculptural quality.

AK: I think that working with mechanisms, using them for function and design, gives my jewelry a sense of lying comfortably on the body and yet at the same time allowing the wearer to feel the weight of the metal without being bothered, even though sometimes the piece is a little bit heavy. I think that feeling the piece is

PW: Do you think of yourself as an artist first and then a craftsman, or is it the other way around?

AK: I think of myself as a professional jewelry designer and maker. That's my profession. I make my living from my work, I realize my conceptual ideas in my work, and I enjoy it too. Sometimes it's not so easy to do those three things all at once, but that's the way I like it and that's the way I can keep myself working. And it's easier if you don't take it as a mission but as a game.

Brooch. 18k yellow and white gold



Clasp for a chain. 18k gold

Chain (detail). 18k yellow and white gold

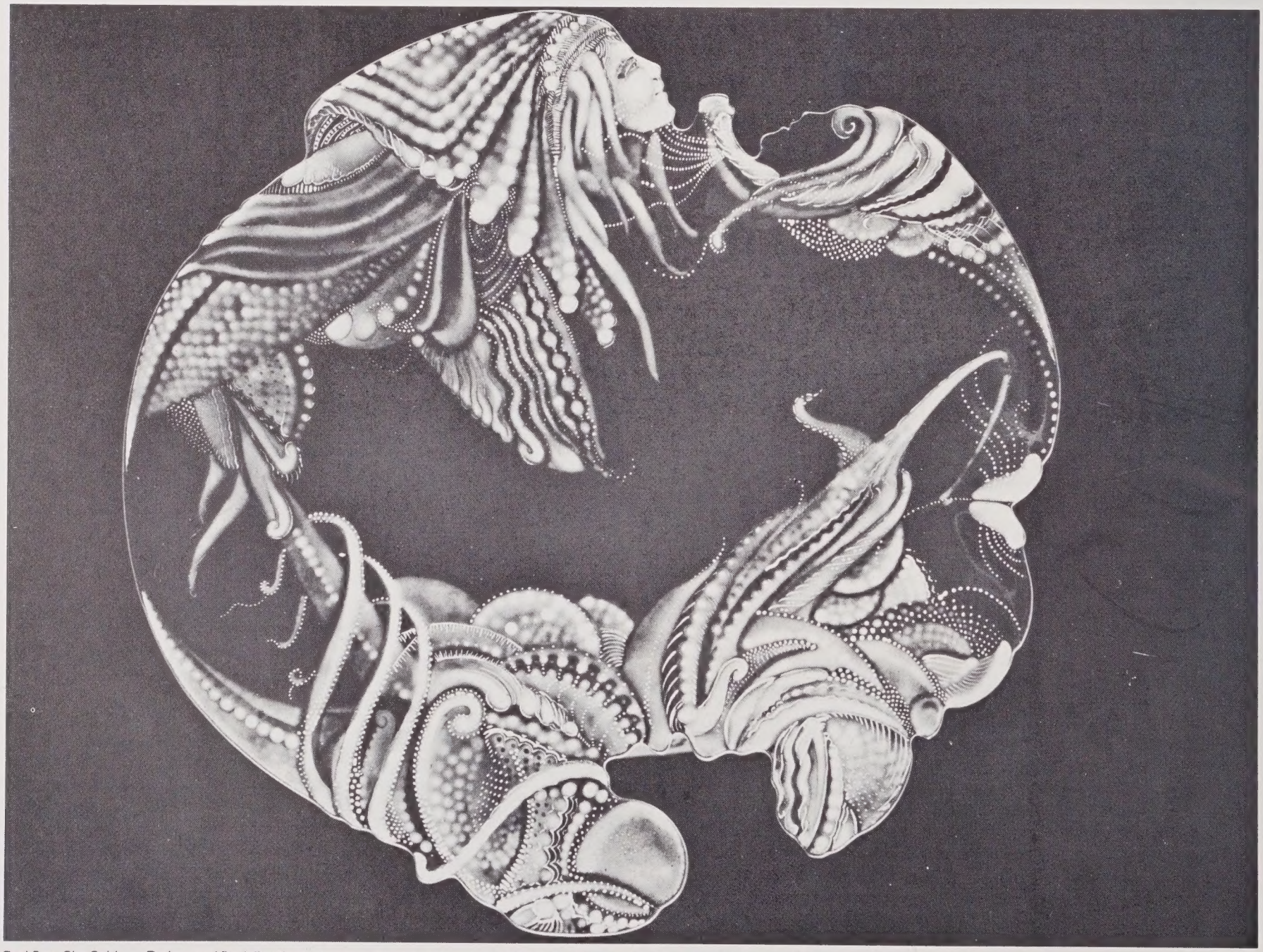
Soft Objects and Enamels

Craft Alliance Gallery
St. Louis, MO January 6 - 30
by John Baltrushunas

January is usually a bleak month. The holidays are over, with their accompanying letdown, and the sun has not returned to give light to our workday. But against this dull background enamelist Bill Helwig and fiber artist Lenore Davis filled Craft Alliance Gallery with spectacular color.

To define the Helwig pieces is difficult because they are enamels. Since enamels have color they always seen to be compared to paintings. Enameling is not like painting, because enameling is not a lesser cousin but an entity of its own. The Helwig enamels were shallowly volumetric objects with shaped perimeters. Their edges were geometric, organic or combinations of both. This theme was reflected in the images. The interior surfaces were lush expressions of a personal world.

Because in the past this artist's specialty was grisaille, the show was a great surprise. The colors were delicious. Transparencies that were barely definable as mauve, taupe or green became environments through which impasto forms moved. Played off against these backgrounds, more intense colors shimmered over textured metal. The collection of 40 enamels afforded a window into the private world of Bill Helwig — a place far removed from contemporary technological society with its universal machine theme. Abstracts of water and fecundity, as seen in shells and sea creatures, were a major image. Dreamy Puck-like figures and other humans also populated this world. The symbols could be interpreted as the primordial writhings of life. To some the theme was pagan and erotic, while to others it was refined sensuality. No matter what the interpretation, everyone who viewed the show was impressed with his handling of the medium.



Red Sea, She Said. . . . Red enamel fired directly on copper over white opaque, pure gold details. 10" diameter. Photo: Huntley Barad

Echoes in Gold

Century Bank, Denver
March 24 - April 4

by Thomas M. Jenkins

As a fine artist-goldsmith, Harold O'Connor is an experimental rebel, whose artistic cause is to create his own designs in his own way. With O'Connor's new series of jewelry (this exhibition is subtitled "Metallic Miniatures of Mining History from Crested Butte, Colorado"), he has grasped a part of Colorado's mining heritage by transforming the imagery of some of its old machinery into wearable gold jewelry.

Having lived in the historic town of Crested Butte for 11 years, O'Connor visited the long-abandoned mining sites on the high mountain slopes surrounding the town, the sites that had once flourished as productive gold, silver and copper mines in the early 1880's. He spent hours taking photographs and making sketches of the old, discarded mining machinery — boilders, ventilating fans, ore crushers, cables, rods and gears lying rusted and unused on the mountainsides.

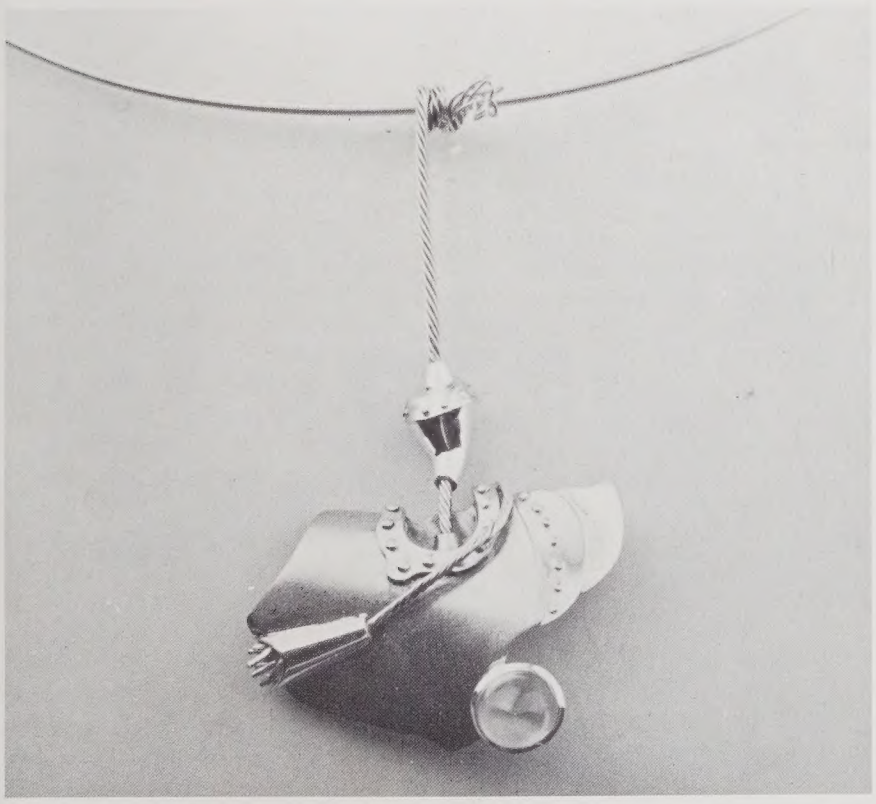
After studying these huge metal relics both from an aesthetic and a technical viewpoint, O'Connor began the creative sequence of transmuting the geometric configurations of the mining remnants into exquisitely miniatured gold jewelry replicas: bracelets, pendants, brooches and rings. Starting with abstract designs and progressing to more representational ones, this jewelry is more than the direct and obvious influence of an artist's environment upon him; it is the expression of an artist touching the past, his personal way of recognizing those ancestral "gold-makers" without whom he could not have become a designer of gold. The mute mining relics have become diminutive but articulate echoes of a vociferous era in Colorado history.

Unmatched in both concept and technique, the replication of the mining equipment resulted from O'Connor's painstaking fidelity to detail in the process from photography to sketches to colored drawings to the tiny-to-scale proportions of the ultimate fabrication. Taking fine gold (18k sheets or chips), he smelted it with silver and copper to form the precise alloy he desired. Without any wax casting, his finishing work included photo etching, hammering, riveting and soldering.

O'Connor's personal artistry embodies such proportional exactness and sculptural finesse that many observers cannot believe he does it all by hand, with no machines or lathes. He uses only hand tools, including some watchmaker's tools, to cut, file and shape his delicate designs. Tiny rods and bolts were made with the aid of small tap and die tools. Thin strands of wire were used to create the realistic seven-strand cable miniatures, which were carefully researched for absolute accuracy.

The miniature metallic ghosts of Crested Butte are striking pieces of jewelry. There are gold pendants, some combined with precious and semi-precious stones: a soaring fan made of 18k gold, silver, serpentine and lapis lazuli; a ventilation fan made of 18k white/yellow gold; a heat exchanger, an ore crusher and a fan cover made of gold. There are 18k gold rings with varying designs: a bolted heat exchanger; a miner's lamp; a turned cable with a moonstone; a cable extrusion; and others. In addition, there are necklaces, one made of gold, silver, mokume and copper, and there are brooches, one made of gold (with a ruby) which is a replica of a boiler section.

O'Connor's pieces of jewelry in this new series are not novel gimmicks of craftsmanship to arouse attention and curiosity. Although his fine workmanship results from hard daily labor, there is something mystical in his feel for the past, for the unintentional legacy of the equipment of the early Colorado miners, for the long days spent for the brief victory that was the gold and silver mining heyday of Crested Butte.



Extrusion of Wrapped Cables pendant. 18k white/red/yellow gold, moonstone

Bolted Entry to Mine Drift ring. 18k yellow/white gold, red beryl

It's About Time

Worcester Craft Center
Worcester, MA
February 2 - March 16
by Tim McCreight

"It's About Time" was a national juried exhibition of time-related craft objects. Of the 51 objects selected for the show, made by 41 craftsmen, 40% were metal. Participating metalworkers were: Wib Lauter, Jerry Harpster, Joanna Fraser Rhodes, James Henderson, Gerald White, Vickie Sedman, Paul D. Reilly, Don Foree, Marion Brown, Barbara Mail, Lotte Cherin, Curtis LaFollette, Susan Kare, Anne Owens Strong, James F. Seavey and D. Jan Jones.

The idea of a show dealing with time had immediate appeal. Whether we're waiting for the bank to open or we've just missed a bus, most of us seem to be caught in a guerilla war with time. Add to this our fascination with the relentless mechanics of swinging pendulums and ticking gears and you have all the ingredients of a dynamic show. For us at the Craft Center, the time show was an exciting project, punctuated by the hum and click and ding and tock of a gallery gone bersek with the idea of chopping infinity into tidy parcels.

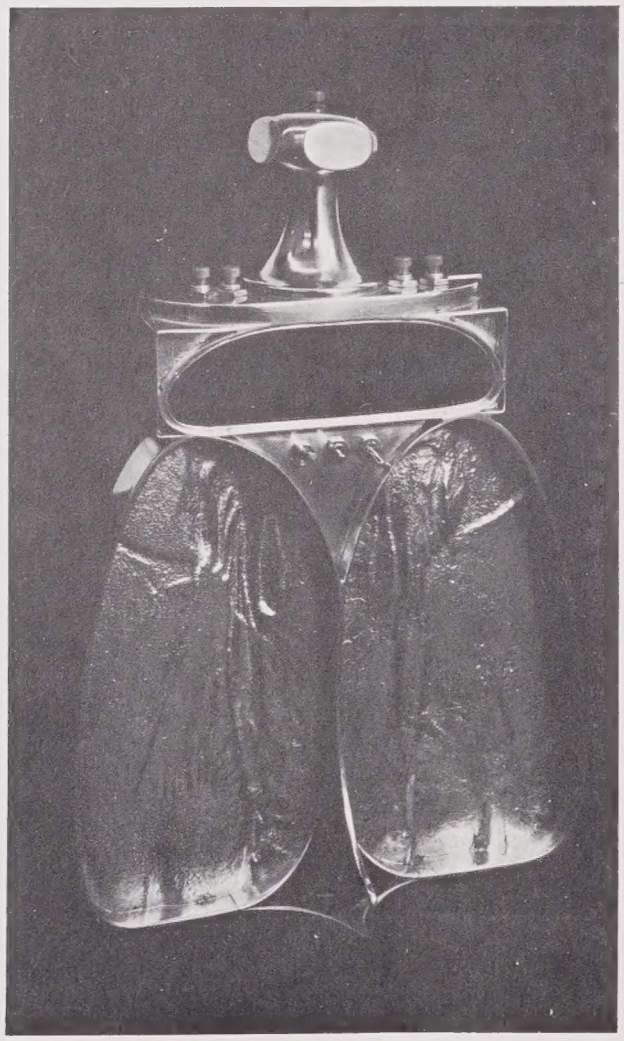
The woodworkers by and large submitted elegant timepieces. Clayworkers provided the most humorous work with whistles, clouds, and enigmatic scenes. The metal objects fell somewhere in between, retaining human charm in the context of the technology of chronography.

Seven of the metal objects contained watch or clock movements. Two of the most striking were James Seavey's 11" high auto-erotic clock that combined hi-tech aesthetics with organic, lunglike forms and Paul Reilly's elegant scepter that opened to reveal a digital readout.

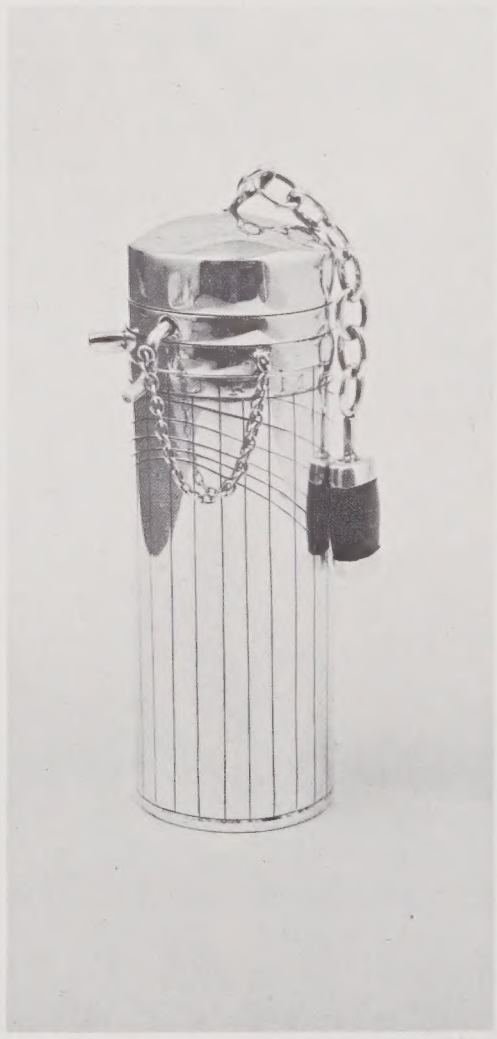
The power of Salvador Dali's *The Persistence of Memory* (you remember, the melting clocks) lies in its radical distortion of time-keeping mechanisms. A similar effect was used several times in the show, as watch mechanisms and clock faces were chopped up and rearranged for purely visual effects. Lotte Cherin, Barbara Mail and Joanna Fraser Rhodes all contributed jewelry in this category, using precious metals and exotic materials to create works that mock the one-time precision of the timepieces they have cannibalized.

Perhaps as a taunt to technology, several metalworkers contributed more basic mechanisms for missing the bus. Vickie Sedman made a space-age hourglass and Jerry Harpster created a pocket sundial container. Maybe the best commentary came from Don Foree whose pendant contained not only a digital watch movement but also a hidden sundial marked "Emergency Use Only."

In the essay written for the exhibition catalog, Loretta Chekani writes of the importance of making time a subject for artists. In doing this, she says, "we have more than a concept to contemplate; we have a kind of revenge."



James Seavey. *Sands of Time.* Pewter. 11"x7"x6"



Jerry Harpster. *Pocket Sundail Container.* Sterling. 2"x2"x6"

Paul Reilly. *And the Peacocks Still Tick.* Sterling, gold, moonstone. 6¾"x2¼"x2¾"

Second Holiday Invitational

Spring Street Enamels Gallery, NYC
December 1979

by Antonia Schwed

Since last year's Holiday Show, this gallery has grown impressively in its representation of enamelists — and the enamelists in turn seem to have grown in creativity and skill. The elegant installation by Judith Shea and Lee DeWeerdt enhanced the already gleaming pieces.

There is not enough space to mention all 76 of the fine enamelists in the show, so I have picked out what were some of the highlights for me.

Again, I must rave about the work of Kristin Anderson, a young American of Norwegian background, whose three jewelry sculptures are exquisite in design and execution. Her *Four Seasons Bell*, a small, fabricated silver bell from which dangle moonstones and minute silver snowflakes, is particularly masterful. The bell itself hangs from an elegant chain, set with an opal and attached to a graceful handmade copper stand, which in turn is set into a finished walnut block.

Fiammetta Rubin is well represented with some fine new large pieces of *basse taille* work. Especially handsome is a breast-plate shaped wall hanging called *Arabesque*, in which the colors are softly subtle and the shape graceful.

Interesting to me, chiefly for its innovative quality, is the work of Dr. Henry B. Cote. Dr. Cote fuses copper foil with enamel into a ceramic background. He has also fused enamel directly onto ceramic surfaces to obtain fascinating textures and rich colors.

Katherine S. Wood's poetic champleve work *Je Reve* is a finely etched portrait of a woman. Undulating lines, like waves or strands of hair, in the background expose a rich purple fabric underneath that harmonizes with the glowing colors in which the woman is enameled.

An entire case here is devoted to Ruth Markus' stickpin people and enamel constructions. As I admire the exquisite Limoges doll faces, they seem to stare back at me. Many of the people wear perfect little silver French *chapeaux*, complete with tiny feathers and silver ribbons.

Kim Poor creates her enamel pictures by sifting delicate layers of enamel directly onto the metal plate. She uses no drawing or guide of any kind. The final firing is done low enough to leave an intriguing overall grainy texture.

Under the teaching of Mel Someroski at Kent State University, two young enamelists have emerged whose work is fresh and interesting. Laura Pearlman's wall pieces consist of mirrors intersected by brilliant sections of cloisonne enamel, and Marlene Byer's earthy bowls, boxes and wall hangings are created by folding and electroplating copper.

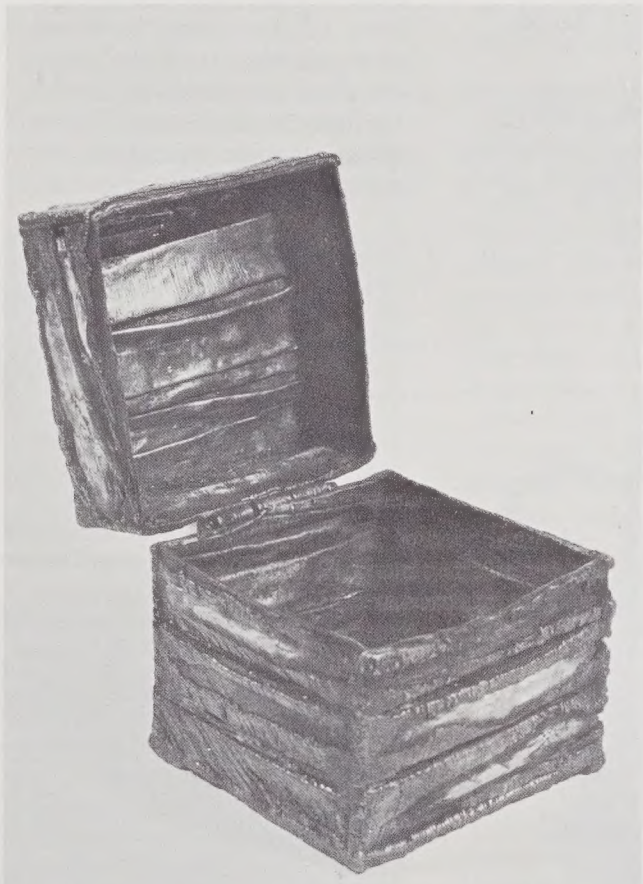
Sergei Blumin, a young Russian emigre, is primarily a jeweler and silversmith; he uses enamels sparsely, for decoration. His strong, imaginative work radiates atmosphere. For example, a small table sculpture, called *An Old Closet*, is made up of an old-fashioned army jacket, with one sleeve missing, hanging from a tiny coat hanger, together with a woman's dress, partly destroyed, also on a hanger. Both may be taken off and admired for their detail. Another piece is a small silver spiral man emerging from a box, the whole being about 3" high.

Lilli Heart works only in 24k gold on her small cloisonne jewelry, which is combined smoothly with transparent and opaque colors.

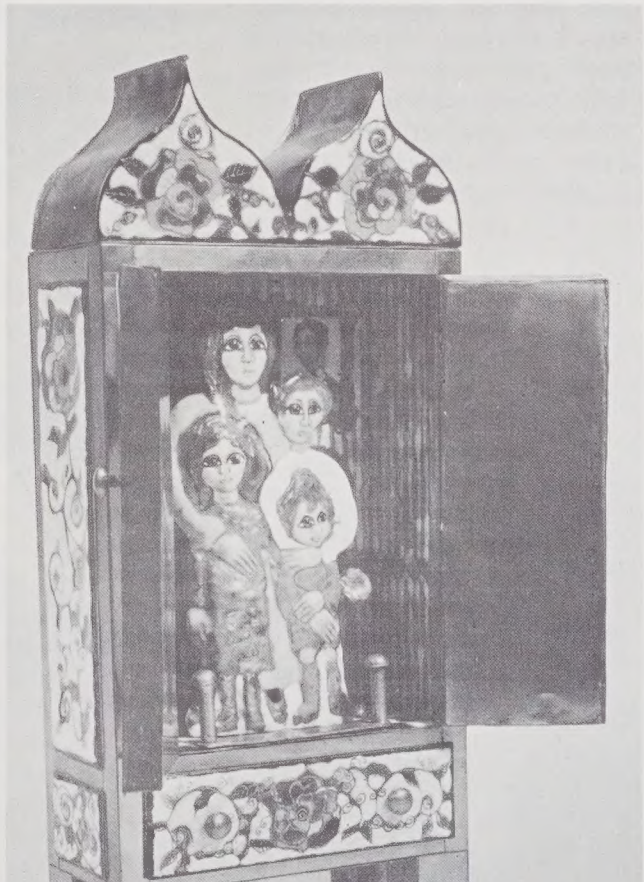
Vivan Kline torch fires Limoges enamels to create an unusual series of foil wall panels.

The basis of Letitia Eldredge's work — performance masks, large free-form bowls and cut-out balls — is ceramic, which she then enamels in vivid colors.

The last decade has seen the growth and development of some superb enamelists. May the next decade see them get the artistic respect and recognition they deserve.



Marlene Byer. *Case*. Limoges enamel on electroplated and folded copper foil with fire scale. 4"x4"x4". Photo: John T. Russell



Ruth Markus. *L'Armoire*. Brass with wood and panels of Limoges enamel on copper. Gold luster and gold leaf. 13"x6". Photo: John Russell

Adult Toy Show

Mindscape Gallery, Chicago
November 1 - 30, 1979

Now a holiday tradition at Mindscape, the invitational "Adult Toys" show exhibits artistic toys in several media, created by 16 artists from across the United States. These grown-up and executive toys are designed to delight big children.

Among the artists whose works are featured are four silversmiths: Dale Binford of Tulsa, OK; Pat Garrett of Ann Arbor, MI; Marcia Gorra-Patek of Thiensville, WI; and Joan Miller of Milwaukee, WI. Fine metal works include silver masks, rattles and pacifiers, whistling whisker combs, music boxes and flirting wands.

A Metalsmith's Toys

Dale Binford, whose greatest joys come from the creation of adult toys in precious metals, is an annual exhibitor in the "Adult Toys" show. Since receiving his MFA in metalsmithing from Indiana State University, Binford has won numerous awards and has exhibited extensively throughout the United States.

"Adult Toys" 1979 features several of Binford's works. These include *Bellringer's Dinger*, *Beaded Bugle Whistle*, *Lady in the Garden Buckle* and *Whistling Watch Chain*.

Commenting on his participation in "Adult Toys," Binford states: "There is something very peculiar about someone who spends most of his time designing and building toys, but there is also something to be said for immaturity. Immaturity is the quality which makes one able to produce toys. When that quality is combined with a refined plan, a keen eye for design, and a delight for playful ideas, toys become possible."

Enchanted Music Boxes Mazes

"Some Enchanted Evening was my first music box," says Pat Garrett. "It has an 18-note movement. The box itself is copper, sterling and 14k gold. It has a hand-carved flower agate cameo and slices of tourmaline. (Small piece is fine watermelon tourmaline. Large piece is unusual for reversed color and size. Tourmalines are becoming very expensive.) Wind to play.

"Process: After the working drawings are completed, the front grill is pierced, sanded, chased and engraved. It is then soldered to the box walls, which are riveted together. All pieces are made from sheet metal, including the copper bezels. All applied decoration is either soldered or riveted. The back plate is held in place by rivets in the side brackets, which are also riveted to the box walls and screwed into the musical movement.

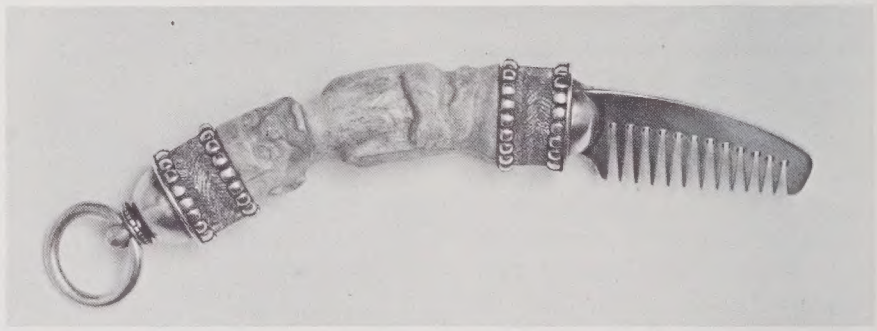
"Eine Kleine Nacht Musik plays the composition by Mozart. To start, wind the flower lever on top; it shuts itself off after one complete round. This box has a 28-note Thorens Swiss movement. Made of copper and fine silver, it has a Mexican lace agate with circles and a Laguna agate with the red flamingo head. I've used a crystal vug for the eye. The design incorporates four flamingoes, a plover (small bird) and papyrus on the front grill.

Silver Toys: Masks and Other Surprises

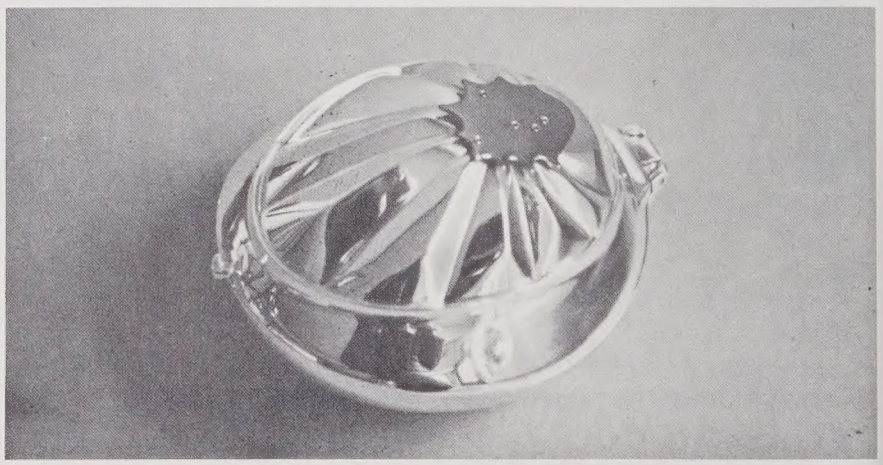
Joan Miller creates serious pieces of sculpture, some of them playthings. Comedy, as we know, is a serious business. "Adult Toys" 1979 presents silver masks, a music box (silver and titanium), a Merkin box and more.

Miller states: "I work primarily in sterling silver. Its subtle color and ductility allow me to express form and function in a monolithic, metamorphic manner. Silver has become costly, but the public should have the opportunity to enrich their silver collection in a contemporary, aesthetic way. I wish to bridge the gap of classic sterling with articulate but simple functional forms."

Pat Garrett. *Some Enchanted Evening*. Copper, sterling, 14k gold, 18-note movement. Hand-carved flower agate and tourmaline slices



Dale Binford. *Whisker Comb Keyring*. Carved antler, silver. 8½" long. Photo: Mark Krastof



Joan Miller. *Merkin Box*. Sterling silver, titanium, suede lining. 6"x5"x4½"h

President's Report

I am very gratified at the response to my suggestion in December that SNAG start a collection of show catalogs. So many people felt it to be a good idea and were willing to work on the project. Barbara Minor at SUNY, Geneseo will be coordinating things and working up a plan of action. Nita Schleter is working on an index of all our past journals, including the early *Golddust* newsletters. Locating information on a certain topic should be much easier in the future.

At this writing, I still do not have any volunteers to organize next year's conference. Coupled with that, it has been suggested that 1983, when the conference will be held in Atlanta, is too long to wait for the next SNAG exhibit, and that, if we get busy, an exhibit could be organized for 1981. What do you think?

These topics will be discussed in Tucson and reported on in the June issue, but I did want those of you who are unable to attend the gathering to be thinking along these lines. You are most welcome to relay your opinions to your board.

I am very pleased to be able to report that the board, in its November meeting, decided to extend a one-year's complimentary membership in the society to the winners of the "Young Americans: Metal" competition. Interviews with these seven craftsmen appear in this issue. Having seen all the work entered for this show, I am most optimistic about the state of our art. Advances made over the last 10 years are astounding. In both technique and concept, the work is superb and speaks for a most healthy new generation of metalsmiths.

As I sit to write this, it is still a bit over a month to conference time, and your board is busy making plans for changes in the journal and wrestling with the 1980-81 budget to present to the membership. As everyone is aware, costs are rising. We will be discussing the various options we have at the general meeting, but one thing we all can do, which would be of great help, is to encourage someone else to become a SNAG member. The journal is our largest expense. We are at the point where, if we were able to double our circulation, the cost per issue would drop by almost one-half. Our journal has been such a valuable communications link for us that it is hoped we can now develop it a step further into a fine magazine. We are looking towards more varied articles written by professionals in the related fields of art history, philosophy, aesthetics, archeology, topics of interest to us all, while continuing to offer and exchange information on current activities and techniques. But, in order to achieve all this, emphasis must be placed on increasing our advertising and circulation.

Another way to help out is to fill in the reader survey that you either received at the conference or will find inserted in the journal. Before you return the survey, be sure to indicate a friend's name and address to receive a free copy of the journal. In this way, we can recruit more members and help our editorial and advertising pursuits at the same time.

Mary Lee Hu
Art Department
Michigan State University
East Lansing, MI 48824

News

Sandra Blain Named Director of Arrowmont

Grand Council of Pi Beta Phi Fraternity in conjunction with the University of Tennessee, College of Liberal Art, has appointed Sandra Blain as Director of Arrowmont School of Arts and Crafts. Ms. Blain has served as Interim Director of the school since December, 1978 and prior to that as Assistant Director for ten summers.

With the appointment, Ms. Blain hopes to get Board approval for a year-round schedule which would continue the summer workshop program of one-/ and two-week sessions; would sponsor workshops and seminars and community classes for participants of all ages, would provide for artists-in-residency programs, and would offer university graduate and undergraduate programs.

Haystack Auction

The second New York City Craft Auction will be held on Friday, May 9th by Haystack Mountain School of Crafts. About 100 fine works of art in craft media will be donated by former Haystack faculty members and noted craft collectors from across the country. Jack Lenor Larsen, Auction Honorary Chairman, hopes to surpass the $40,000 raised at auction last year in his New York City showroom. The location of the 1980 exhibition and auction is the elegant Harkness House, 4 East 75th Street. Pieces for the auction will be on display there from Monday, May 5th through Friday evening, May 9th. The auction begins at 8:30 p.m.

Additional revenue from the auction will be used for increasing the scholarship fund and building the Haystack Hotshop for blacksmithing and glassblowing — two projects of the Haystack Director, Howard Evans. Francis S. Merritt and Ronald H. Pearson, a metalsmith and Vice President of the Board, are Chairmen of the 1980 auction.

Business Skills for Artists

More than 1,000 artists, anxious to improve their business and marketing skills, attended a two-day conference, "The Business of Art and the Artist," at the American Museum of Natural History in New York City on January 24 and 25. This was the third such conference held since the inception in June 1979 of the program, jointly sponsored by the Small Business Administration and the National Endowment for the Arts, to provide artists with business skills. The other two conferences were held in Los Angeles in September and in Chicago in November of 1979. Topics ranged from "The Value of Planning and Setting Goals" to "Health Hazards" to "Double-Entry Bookkeeping." Speakers were drawn from both the business sector and the arts community. This is the first time that federal government agencies have cooperated to assist the arts community.

Future plans call for the publication of a manual from the conferences to provide Small Business Administration Assistance Offices with guidelines for conducting additional workshops in other geographic areas. Because of the overwhelming response in the New York area, another similar conference is being planned for the spring. The cost of attending the two-day workshop is $10.

For more information, write: Lisa Lonschein, New York District Office, Small Business Administration, 26 Federal Plaza, New York, NY 10007, or call: (212) 264-1766.

Innovations in Metal

Brentano's and the Parsons School of Design/New School are jointly sponsoring a faculty and student exhibition, "Innovations in Jewelry," from April 7 - 18 at Brentano's Fifth Avenue store.

Biographical information about students and faculty members participating in the exhibition will supplement the photos, working sketches and prototype models of "fashion" jewelry on display. The work is derived from a course based on illusion in jewelry, which emphasizes design over production. However, other courses do concentrate on production and at the exhibit there will be ongoing demonstrations by the students showing tools, techniques and materials. These sessions will be held morning, noon and evenings when the store is open. The students will also be available to discuss their jewelry.

The primary goal of this joint project is to record and demonstrate the education of a metalsmith. This is the first of a projected series including educational systems and groups of metalsmiths across the country.

Baltimore Winter Market February 14 - 17

Attendance and Sales

Having been almost suffocated in the jammed aisles on Saturday at the Winter Market, we called American Craft Enterprises for attendance figures. And, indeed, this year's market attracted a larger public than last, with 24,000 ticket purchases and an estimated 6,000 more on press and complimentary passes.

The total wholesale figure for jewelry, with 51 out of approximately 70 jewelers reporting, was $220,000. Retail was $58,150. Total sale per exhibitor was $5,450, up about 36% from last year.

In the metal category, with 21 out of approximately 70 craftsmen reporting, the wholesale figure was $61,000 and retail $35,250, placing the total per person at $4,580. This was up an astounding 60% from last year, but fewer people reported this time.

Calendar

Arkansas

Convention Center, Eureka Springs, "4th Annual Ozarks Quality Art and Crafts Show," May 2 - 4

California

Concepts Gallery, Carmel, New Jewelry and Holloware by Helen Shirk, April 11 - May 16; New Jewelry and Holloware by Linda La Roche and Sculpture by David Rodgers, May 30 - June 29; Jewelry by Wendy Ramshaw and David Watkins, October 10 - November 16; California Jewelry and Metalsmithing Invitational, November 21 - December 31

Brand Library Art Gallery, Glendale, "The Western Edge: Designer and Production Crafts," July 11 - August 5

Connecticut

Guilford Handcrafts Exposition, Guilford, July 17 - 19

Hartford Civic Center, Hartford, "Festival of Greater Hartford Craft Market," June 6 - 10

District of Columbia

Greenwood Gallery, Group show of crafts, including metalsmiths Robert Ebendorf, William Harper, Bill Helwig, Mary Lee Hu, Ronald Hayes Pearson, Heikki Seppa, March 21 - April 26

Renwick Gallery, "Georg Jensen Silversmithing: 77 Artists, 75 Years," through July 6

Kansas

Topeka Public Library, Topeka "Topeka Crafts Exhibition IV" March 31 - April 30

Massachusetts

All over Boston, "Boston's 350th Birthday Jubilee," throughout 1980, particularly in the summer; early crafts featured by Museum of Fine Arts

Mobilia Gallery, Cambridge, "Recent Enamels by Colette," March 1 - May 5

Boston Architectural Center, Boston, "Senior Class Show," May 19 - 30

Worcester Craft Center, Worcester, "10th Annual Worcester Craft Center Fair," May 16 - 18

New Jersey

Peters Valley, Layton, "11th Annual Craft Fair," July 26 - 27

New York

Roslyn Library, Roslyn, LI, Long Island Craftsmen's Guild metal and enamels show, April

American Craft Museum, New York City, "Art for Use," an exhibition of handmade objects by Americans working in fiber, clay, glass, wood and metal; assembled by the ACM for showing at the Winter Olympics in Lake Placid, NY, March 28 - May 25

Artwear, New York City, "American Titanium" mid-June

Brentano's Fifth Avenue Store, New York City, "Innovations in Metal," a joint educational exhibition of students and faculty of Parsons and the New School, April 7 - 21

Spring Street Enamels Gallery, New York City, Fiammetta Rubin — One-Woman Show Opening March 22

Dutchess County Fairgrounds, Rhinebeck 15th Northeast Craftfair ("Rhinebeck Fair"), June 24 - 29

Ohio

Grover M. Herman Fine Arts Center, Marietta College, "13th Annual Painting and Sculpture Exhibition" April 5 - May 11

Pennsylvania

Kripp Gallery, Indiana University of Pennsylvania, Indiana, "Jewelry and Metalsmithing Exhibition," April 20 - May 9

Sign of the Swan Gallery, Philadelphia, "Women by Women," April 19 - May 23

Museum of Art, Pennsylvania State University, State College, "14th Annual Juried Crafts Exhibition, Central Pennsylvania Festival of the Arts," July 6 - August 22

Texas

Houston Designer Craftsmen, Houston, "1980 National Juried Exhibition," April 16 - May 4

University of Houston, Houston, "Tradition and Change" juried craft exhibition, April 6 - May 4

Vermont

Stowe, "5th Annual Juried Craft Show," August 1 - 3

Wisconsin

Milwaukee Art Center, Milwaukee, "Silver in American Life," May 16 - June 20

England

Goldsmith's Hall, London, "SNAG Traveling European Exhibition," May 8 - 30

Exhibition Opportunities

Marietta College Crafts National '80

Marietta College Crafts National '80, the Ninth Craft and Sculpture Exhibition will be held November 1 - 30 at the Grover M. Herman Fine Arts Center, Marietta College, Marietta, OH. Prize money totals $5,500, including: $1,000 Judges' Award of Craftsmanship; $2,500

Judges' Awards; $500 The Hand & The Spirit Craft Gallery Award; and $1,500 in Purchase Prizes. Crafts and sculpture in all mediums will be juried by slides. A maximum of three works may be submitted (a set constitutes one work). There is a $10 entry fee and 25% commission will be taken on sales. Slides due September 13; accepted work due no later than October 26. For a prospectus, write: MCCN '80, Arthur Howard Winer, Director, Marietta College, Marietta, OH 45750.

Enamels Exhibition Call for Entries

The Craftsmen's Guild of Omaha is sponsoring a juried enamels exhibition, which will be held from August 29 to October 30. Open to all residents of the U. S. working in enamels. Submit up to 10 slides with a SASE; entry fee $5; deadline June 30. Details from: Craftsmen's Guild, 511 South 11th, Omaha, NE 68102.

Spring Crafts Festival

Sugarloaf Mountain Works, Inc. announces the 3rd Annual Spring Crafts Festival at the Maryland State Fairgrounds May 23 - 26. Exhibitor selection is strictly juried on a first-come basis. Applicants must send four 35mm color slides. Most media and categories are considered. Space fee is $100, no commissions. Attendance last year totaled 19,200, with 250 artists and craftsmen exhibiting. For more information on this and other upcoming shows, send a full-size SASE to: Ms. Deann Verdier, Director, Sugarloaf Mountain Works, Inc., Rt. 2, Box 89-68, Ijamsville, MD 21754. Telephone: 301/831-9191.

Fifth International Jewelry Competition, Schmuckmuseum Pforzheim, West Germany

Following the success of the jewelry competitions in the years 1965, 1969 and 1972, the Schmuckmuseum Pforzheim is continuing its series with the announcement of the 1980 competition. The theme of this Fifth Jewelry Competition is bracelet.

Deadline entered work to arrive in Pforzheim is June 6, 1980. Work should be sent to: Schmuckmuseum Pforzheim, Reuchlinhaus, Jahnstr. 42, D-7530 Pforzheim, West Germany.

Address all inquiries to: Dr. Fritz Falk, Schmuckmuseum Pforzheim, 7530 Pforzheim, West Germany.

1980 Diamonds for Men Competition

The Diamond Information Center, on behalf of De Beers Consolidated Mines, Ltd., announces the first "Diamonds for Men Competition." The competition is based on the theme, "Show him how to wear his diamonds," and entrants are invited to design pieces around this theme.

The competition is open to jewelry manufacturers and designers based in the United States. Retail jewelers may enter if the pieces are designed by the retailer and made available to other retailers nationally.

Entries will be judged on the basis of wearability, craftsmanship, originality, innovation, fashion and salability. Winners will be awarded a plaque suitable for display in a store or showroom.

All submissions must be received no later than Monday, May 12.

For more information and application form, write: Diamond Information Center, NW Ayer ABH International, 1345 Avenue of the Americas, New York, NY 10019.

Richmond Craft Fair 5

The Richmond Craft Fair will take place November 14 - 16 at the Richmond Arena. Cash awards total over $3,000. Selection based on slides due June 1; entry fee $5. For more information, write: Cynthia Schaal, Richmond Craft Fair 5, 7 North 6th Street, Richmond, VA 23219.

4th Street Festival of Arts and Crafts

The 4th Street Festival will be held August 30 - 31 in Bloomington, Indiana. Deadline for entries is June 7 and space fee is $35, no commission. For more information, write: Bloomington 4th Street Festival, P. O. Box 1257, Bloomington, IN 47402.

Two Festivals in Indianapolis

The 6th Eagle Creek Arts & Folk Music Festival will be held July 26 - 27. Prizes of $150 will be awarded. Deadline for entries is July 1. Fee $15. The 7th "Days in the Country" Festival will be held October 11 - 12 and 18 - 19. Only country crafts are accepted. The festival will be held outdoors. Applications due September 12; entry fee $10. For information on either festival, contact: Karen Bower, Eagle Creek Park, 7840 W. 56th Street, Indianapolis, IN 46254. Telephone: (317) 293-4827.

4th Annual Wearable Art Show

The Wearable Art Show will be held in November - December at Sign of the Swan Gallery, Philadelphia, Pennsylvania. Deadline for sending slides or photographs of wearables is September 15. Include a SASE. Write: Sign of the Swan Gallery, 8433 Germantown Avenue, Philadelphia, PA 19118.

Teaching Opportunities Teaching Position for Fall 1980

The Sculpture Department in the School of Art at the University of Michigan is looking for teachers of beginning, advanced and graduate sculpture in all media including welding, metal casting, moldmaking, plastics. Send slides and resume to: Jon Rush, Sculpture Department, School of Art, University of Michigan, 2000 Bonisteel, Ann Arbor, MI 48109.

Teacher for Summer Adventure 1980

Fidel School at Glen Cove, Long Island, is seeking an experienced artist-teacher interested in child development and contemporary education for the Summer Adventure Program July 1 - August 22. Candidates should be professionals in metal sculpture, silversmithing or jewelrymaking, with experience teaching groups of children ages 7 through 17. A curriculum designed for exploration and innovation with metal materials will be developed. Summer Adventure is a day program; no residence is available on campus. Staff may drive a small school vehicle from New York, Queens, Brooklyn or Long Island. Interested candidates should direct resumes to: Dolores Lindberg, Staff Coordinator, Fidel School, Glen Cove Campus, Lattingham Road, Glen Cove, LI, NY 11542 or call 516/676-7687 between 3:00 and 5:00 p.m., Monday through Friday for an interview.

Faculty Position in Metal Design for Fall 1980

The University of Washington in Seattle announces an opening for a faculty position in Metal Design, beginning Fall 1980. Applicants must have a Master's Degree in metalworking. Rank and salary open. Send resume to: Professor John C. Marshall, Chairman, School of Art, DM-10, University of Washington, Seattle, WA 98195.

Scholarship and Residency Opportunities

Arrowmont Summer Assistantships and Scholarships

Twelve assistantships for five weeks each, six scholarships and several other opportunities for financial support are being offered this summer by the Arrowmont School of Crafts in Tennessee. Assistants will assist faculty and administration and will be entitled to take three weeks of classes during each five-week period. Scholarships in the amount of $200 to $250 may be used for tuition, room and board, materials, etc. Other grants are available, and several craft-related employment opportunities are open to people with business or library experience. Address inquiries to: Arrowmont School, P. O. Box 567, Gatlinburg, TN 37738 or call (615) 436-5860.

North Community College Scholarships

The Crafts Management Program of the North Community College announces that $600 in scholarships will be available for the first time in Fall 1980. The State Federation of Home Bureau, Inc., who awarded $7,500 for the scholarship endowment fund, specify that the recipient: must reside in one of the 35 New York counties which have Home Bureau chapters, must be an entering freshman, and must be considered on the basis of need, family situation, amount of work the student is doing to help himself through college, academic standing, talent, and leadership ability. Students wishing to apply should contact: Nina Holland, Crafts Management Program, North Country Community College, Ballard Mill Center for the Arts, Malone, NY 12953.

Jewelry Residency Position

Peters Valley Craft Center announces an opening for a jewelry resident. Application deadline May 15. For details, contact: Peters Valley, Layton, NJ 07851. Telephone: (201) 948-5200.

International Visual Artists Exchange Programme

The International Visual Artists Exchange Programme is an organization designed to aid artists who desire a period of time living and working in another country. The program operates by a direct exchange between artists of their studio and living accommodation in any of six participating countries. Those countries are: U. S. A., England, Scotland, Canada, Australia, New Zealand.

If you are interested in the Exchange Programme, you must contact the Exchange organization in your own country. The U. S. contact is: Deborah Gardner, I.V.A.E.P., c/o OIA, 201 Varick Street, New York, NY 10014 or (212) 929-6683.

Graduate Metalsmithing Assistantships

Bradley University in Peoria, Illinois is currently offering M.F.A. and M.A. degrees in metalsmithing. A limited number of half-teaching assistantships are available. Duties include assisting in teaching of metalsmithing/jewelry courses and general shop maintenance.

Deadline for applications, including: portfolio of work, originals or slides; official transcripts; three letters of recommendation is May 15.

For further information, contact: James Malenda, Division of Art, Bradley University, Peoria, IL 61625. Telephone: (309) 676-4278.

Studio/Shop Space for Summer 1980

Eagle Creek Park in Indianapolis, Indiana is seeking an Artist/Craftsman interested in studio space in the park's Craft Center. This renovated stable has rustic charm, and a permit to sell is included in the low rental fee. Requirements: Center must be open to the public with craftsmen demonstrating every weekend and three weekdays. Slides of work and three references requested. Contact: Karen Bower, Eagle Creek Park Office, 7840 W. 56th Street, Indianapolis, IN 46254. Telephone: (317) 293-4827.

Workshops

Connecticut

Brookfield Craft Center presents summer workshops in metalsmithing and jewelry: Heikka Seppa — Shell Structures, techniques in metal forming; Tim McCreight — Die Forming; Judith Daner — More Explorations in Enameling: Pat Flynn — Fundamentals of Jewelry and a workshop in stonesetting; Mark Baldridge — Casting; Barbara Mail — Metalworking Techniques for the Enamelist; John Cogswell — Hollow-Core Jewelry and Container Construction; Hiroko Sato Pijanowski — Mokume-Gane. For a complete listing, write for Summer Brochure to: Brookfield Craft Center, P. O. Box 122, Brookfield, CT 06804 or call the Registrar at (203) 775-4526.

Kansas

The Kansas Artist-Craftsmen Association Spring workshop will be April 26, 1980 at the Wichita Art Association. Six to eight prominent Kansas artists will give presentations. Registration fee, $10, includes lunch. For information, write: Glenice Matthews, 3-d Art, Friends University, 2100 University, Wichita, KS 67213. Telephone: (316) 945-0757.

Maine

Haystack Summer session presents: J. Fred Woell, June 15 - July 4; Kathleen Doyle, July 6 - 25; Patty Daunis-Dunning, July 27 - August 2; Jamie Bennett, August 3 - 22; Mary Lee Hu, August 24 - September 12. For information, write: Haystack Mountain School of Crafts, Deer Isle, ME 04627. Telephone: (207) 348-6946.

North Carolina

Haywood Technical College presents a Bi-Metal Casting (silver to titanium) workshop under Mark Baldridge, May 19 - 24. For information, write: Haywood Technical College, P. O. Box 457, Clyde, NC 28721.

Tennessee

Arrowmont School of Crafts presents summer workshops with: A. Anderson; J. Bennett; C. Evans; M. Hu; G. Noffke; M. Someroski; W. Strickland: J. Wallace. For more information, write: Arrowmont School of Arts and Crafts, Box 567, Gatlinburg, TN 37738.

Virginia

Longwood College presents "Centrifugal and Vacuum-Assist Casting" workshop under Mark Baldridge, July 7 - 16. Instate tuition $90, out-of-state and graduate $105, 3 credits. $90 covers room and board for week in air-conditioned dorms. For information, write: Barbara Bishop, Chairman, Longwood College Art Department, Farmville, VA 23901.

California

Marilyn Ravanal is offering private instruction in beginning and advanced techniques in jewelry, silversmithing and enameling. The 10-week sessions are scheduled to commence April 12 and June 28. For more information, contact: Marilyn Ravanal, 827 Gardenia Ave., Long Beach, CA 90813. Telephone: (213) 599-5083.

New Members

During the past two months the following new members joined the Society of North American Goldsmiths: 50 Associates, 40 Students and 7 institutions. A complete listing will appear in the June issue of the *Journal*.

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Craft Summer

June 16—July 25

June 16-20—Papermaking (B. Vinzani) • Screenprinting & airbrush (C. Breitenbach)
June 23-27—Stained glass (P. Soloman & D. Giunta) • Beginning Weaving (D. Warner) • Photography for the Artist (C. Bostain) • Puppetry (J. Stock & D. Kirk)
June 30-July 4—Jewelry, stone setting (E. Lowry) • Advanced enameling (B. Harper) • Advanced weaving (C. Schira)
July 7-11—Fabric Dyeing (L. Brooks) • Off loom weaving (D. Itter) • Brass bronze shell construction (H. Seppa)
July 14-18—Fabric Geometry (M. James)
July 21-25—Basic Glass blowing for beginners (J. Catania)
June 16-27—Low fired earthenware (O. Loloma) • Advanced enameling (H. Helwig)
June 23-July 4—Batik (S. Blumrich)
June 30-July 11—Watercolor (D. Dennis)
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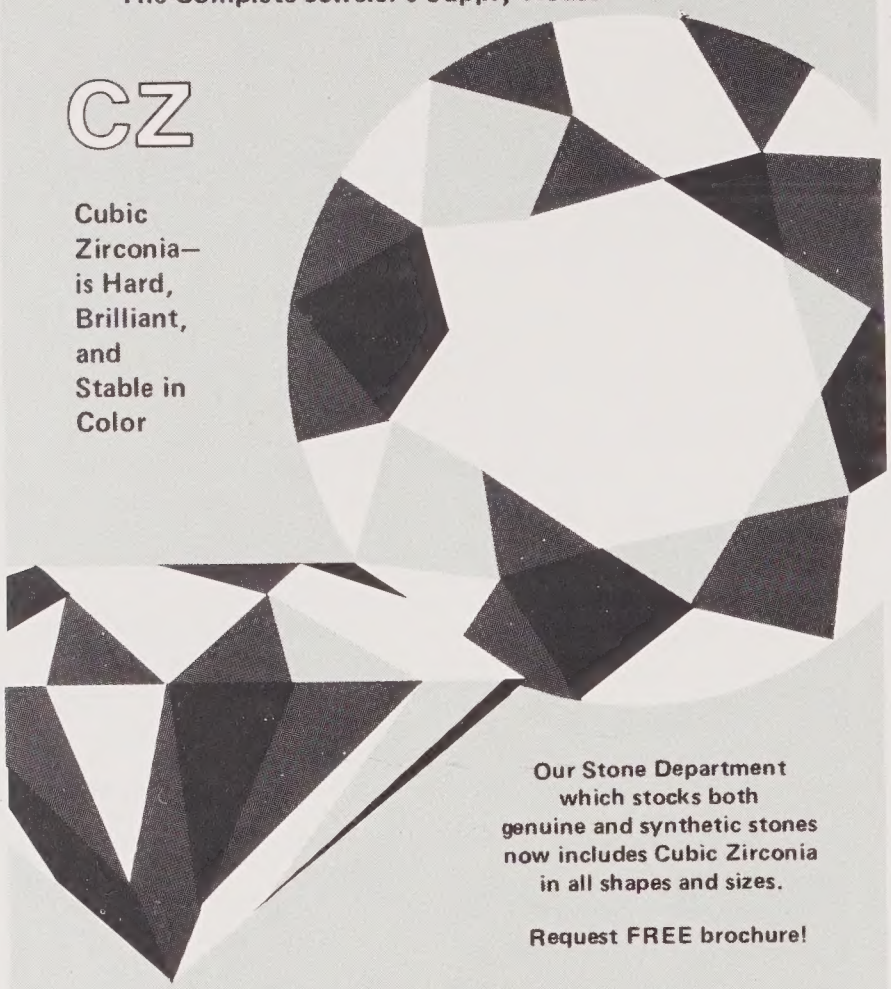

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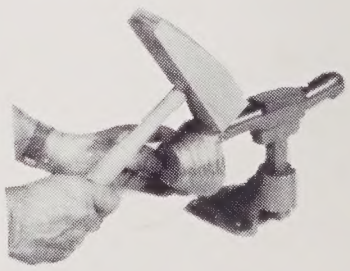

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Pro-Members' slide portfolios form the major part of our rental library. The slide sets are kept up-to-date by each pro-member on a regular basis. Sets are available by individual in separate carousels or as a survey with three examples of each pro-member's work plus a slide of the person, when available, housed in three 140-slide carousels.

Also available for rental: Documentary film of SNAG's history. 13 minutes, 16mm, with sound.

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Below are some questions about the SNAG audio/visual services. Your response will help shape the future direction of the a/v library. Please send your answers to Sandie Zilker at the above address. Thank you.

How do(would) you use the slides offered in the a/v library?

teaching aid_____ lecture/workshops_____

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How should the slides be packaged? carousel trays (as now)_____

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What kind of slides would you like to have available? technical_____

if so, what _____

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Would you like to see Pro-member sets arranged by specific techniques or type of work (enamel, mokume, chalices, etc.)?

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Do you think we should develop in the audio direction, such as: interviews with individuals important to the field; taped interviews/statements, autobiographies to accompany slides; taped descriptions of pieces in exhibition sets? *Underline your choices.*

Other comments on audio/visual services _____

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July 28-August 29 **Second Session**

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Students, teachers, and friends are cordially invited to view the exhibit during this period. The members of the Sterling Silversmiths Guild of America are grateful to the design/craft teachers who helped students participate in the competition in this very volatile year in the silver market.

The Lever House lobby is open from 10AM to 5PM each weekday. If you will be in New York in June, do see what students created in silver this year.

Sterling Silversmiths Guild of America
1111 East Putnam Avenue
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